IN RE THE MEETING OF THE)
BAY-DELTA ADVISORY COUNCIL)
_____)

ORIGINAL

TRANSCRIPT OF PROCEEDINGS

SACRAMENTO CONVENTION CENTER

13th and K Streets, Room 204

Sacramento, California 95814

Thursday, January 30, ~~1996~~ 1997 at 10:08 a.m.

REPORTED BY: SUSAN PORTALE, CSR NO. 4095, RPR, CM

PORTALE & ASSOCIATES DEPOSITION REPORTERS
211 East Weber Avenue
Stockton, California 95202
(209) 462-3377

E-014039

COUNCIL MEMBERS:

MICHAEL MADIGAN, Chairman, California Water Commission
LESTER SNOW, Executive Director
SUNNE McPEAK, Bay Area Economic Forum
ERIC HASSELTINE, Contra Costa Council
JACK FOLEY, Metropolitan Water District of Southern California
ALEX HILDEBRAND, South Delta Water Agency
TOM MADDOCK, California Chamber of Commerce
BOB RAAB, Save San Francisco Bay Association
RICHARD IZMIRIAN, California Sportfishing Protection Alliance
DON BRANSFORD, Glenn-Colusa Irrigation District
DAVID GUY, California Farm Bureau Federation
TOM GRAFF, Environmental Defense Fund
JUDITH REDMOND, Community Alliance with Family Farmers
PIETRO PARRAVANO, Pacific Coast Federation of Fishermen's Associations
HOWARD FRICK, Friant Water Authority/Arvin Edison Water Supply District
STUART PYLE, Kern County Water Agency
MARY SELKIRK, East Bay Municipal Utility District

COUNCIL MEMBERS: (cont'd)

ANN NOTTOFF, Natural Resources Defense Council

ROBERT MEACHER, Regional Council of Rural Counties

ROGER THOMAS, Golden Gate Fishermen's Association

HARRISON (HAP) DUNNING, Bay Institute

ROBERTA BORGONOVO, League of Women Voters

TIB BELZA, Northern California Water Association

MARCIA SABLAN, Mayor of Firebaugh

ROGER PATTERSON, Designated Federal Official

MICHAEL MANTELL, Designated State Official

MIKE STEARNS, San Luis Delta Mendota Water Authority

MARCIA BROCKBANK, San Francisco Estuary Project

RAY REMY, Los Angeles Area Chamber of Commerce

---oOo---

(All parties present, the following proceedings were had at 10:08 a.m.:)

CHAIRMAN MADIGAN: Well, good morning, all of you.

The hour of 10 a.m. having arrived and most of you, apparently, having made your way through the fog satisfactorily, and I congratulate you for that, we'll go ahead and get started, and those who weren't able to make their way quite so successfully through the fog to arrive we'll try to catch them up.

Before we get started, I would like to introduce to all of you Colonel David Peixotto of the Army Corps of Engineers is joining us this morning.

Colonel, thank you very much for joining us. The purpose of today's meeting is primarily to provide the members of the BDAC with the progress of the water quality and the water use efficiency programs and to discuss the issues that have been the focus of the work group meetings.

We are going to spend quite a bit of time on those issues today and your thoughts, your concerns and your advice will be most appreciated.

You have received most of the material within the past week or so.

For those of you in the audience who are

Page 5

interested in the material which the BDAC members presumably have there should be copies available to you outside in the hallway and you are welcome to that information.

To those of you who will wish to speak to the Council at various times we would ask that -- and we will provide you with an opportunity for specific comments on specific items as those Agenda items occur.

We would ask you to fill out a public speaker card at the registration table so that we have your name and address and so that we can hunt you down in the dead of night if we disagree with you.

For those of you who have general comments there will be an opportunity at the end of the meeting for that purpose and the same request for a speaker card would apply.

At the moment the next BDAC meeting is scheduled for Wednesday, March 12, in Sacramento here but at the Beverly Garland Hotel as opposed to the convention center for those of you who plan on attending.

We are also planning a meeting for the 10th of April, and I understand that staff is looking for a venue in San Francisco.

So I would hope that all of you will note the March 12 and April 10 dates. The March 12 is at the

Page 6

Beverly Garland here in Sacramento and that April 10th at the moment will likely be in San Francisco, and we will get you the location as soon as we can.

As always to members of the BDAC and several of you are very good about this your comments in writing on issues that are of concern to you are most valuable and welcome, and we will see to it that they get distributed.

Okay. Anything else for the good of the order in terms of the usual housekeeping items? Lester, anything that you want to observe at this point?

If not, then we'll move on to the item on the Agenda listed as Component Integration and Programmatic Level of Detail.

Mr. Snow.

EXECUTIVE DIRECTOR SNOW: Thank you, Mr. Chairman.

Do you have me on yet? There we go.

The only thing I would add, just a general introduction, you'll notice that the second Agenda item that we have scheduled is a status report on the flood and we are fully aware there is probably a lot to be said and we'll make sure that we have time to discuss some of the issues because as you might expect there is significance to our program in terms of what's happened in the flood and vice versa. We would hope that some of the things we are

Page 7

contemplating in the program could have some impact on the potential for future flooding and flood damage.

I'm going to start off this Agenda item and talk about timeline and decision points and BDAC and kinds of discussions that were expected from BDAC to meet our timeline and then turn it over to Steve Yaeger and Rick Breitenbach to talk a little more about level of detail and how we move through Phase II and what Phase III is and how we kind of get from where we go to where we need to be.

I want to start with the general timeline.

Now, we've taped up two simplified timelines on the wall over there, and I think you all can kind of pick off the dates on that.

Oh, okay, maybe not.

What I want to do is kind of hit some critical dates -- well, maybe not. Okay. Where is the on button? This one?

MARTHA TURNER: It's the red one.

EXECUTIVE DIRECTOR SNOW: Oh, the red on button. Okay.

This is kind of a grossly simplified version of what's on the wall and I would encourage you at break or at lunch or whatever to kind of take a look at that because that's the first time that we have started to trying to integrate some of these different functions and when they

Page 8

come together and when you have to start to making critical decisions.

I think the significance here is kind of on the top part where we have impact analysis. That really is occurring late February through August. It's kind of an ongoing thing that happens with impact analysis. We are starting to identify the preferred alternative in September time frame, hit the public with a Draft EIR/EIS in November, get a lot of comments, try to develop response to comments in the spring of '98 and move to a final EIR/EIS for public review in late summer, early fall, move to certification and Record of Decision, then at the very end of '98.

And so this is kind of what our target is.

A lot of -- if you're like me, to simplify things, what you've been doing is you think that the whole decision being the EIR/EIS but when we look at all of our work there is a lot of other things that have to come along other than just classic EIR/EIS.

Draft agreements around facility operations and assurances, adaptive management program, finance, basic implementation process and some increasing level of knowledge about the alternatives of pre-feasibility and so all that's coming along at the same time and represents certain levels of decisions that have to be made.

Page 9

Thanks.

MR. GRAFF: Lester, would you put that back up again? I have a question.

You said preferred alternatives September?

EXECUTIVE DIRECTOR SNOW: Yeah.

MR. GRAFF: Draft EIR/EIS, does that imply that the Federal and State governments will have a draft preferred alternative on the street by September or November or both?

EXECUTIVE DIRECTOR SNOW: Not on the street.

It's where you start IDing the preferred alternative, where the agencies start getting a grip on it in order that you can actually then prepare the full draft for public review.

And so you're IDing the draft back in this time period so that the agencies are understanding how the pieces fit together, what the problems are and what is important to disclose in the public draft.

MR. GRAFF: Because I've been told that it does not -- technically at least NEPA, I don't know about CEQA, does not require a preferred alternative and a draft.

EXECUTIVE DIRECTOR SNOW: That's correct.

MR. GRAFF: So are you able to say now whether there will be one?

Page 10

EXECUTIVE DIRECTOR SNOW: That is our objective and has been from the beginning that we feel that our target is to identify a preferred alternative in the draft.

And if we can do that, which, again, is where we are headed, you get a much higher quality of review from people than if you're carrying three or four possible alternatives.

One other way to kind of characterize the timeline and the issues we have to deal with again is looking at the CalFed Phase II decisions.

Clearly a decision at the end in terms of approval of the final programmatic EIR/EIS and there is a lot of ways to characterize what's in that but it's certainly the integrative components that we are all working on separately right now and all of that integrated with the storage conveyance configuration and currently there is a lot of different configurations in storage and conveyance.

When we hit the final we've got components integrated and a storage and conveyance configuration that is preferred.

A facilities operations plan. This is just to make sure people understand that you can have physical facilities and they can do certain things but how you agree to operate them is as important as what the facilities are themselves and then the implementation plan. The issue of adaptive management, institutional legal assurances, financing plan, and a staging plan, how you would break up this large program into discreet stages to be implemented.

When we look at some of the BDAC discussions and the relative time frames, I kind of want to jump ahead a little bit and then we'll come back to where we are right now, but when we look at the period April through July, what our intent is is to have in discussion in the BDAC forum facilities operational concepts, how you would operate these configurations.

Clearly, the adaptive management strategy, how that can work to deal with future implementation, financial strategy and assurances. You know, actually everything you do up here has kind of over to the side assurances because all of this has to have assurances associated with it, but also we'll have a basic package that describes all of the assurances and then certainly in this time period we'll start getting draft impact analysis coming out of our impact assessment.

Then in the time period after that, the three months, August through October, we are really getting into as you saw from the other chart identifying the preferred programmatic alternative, coming up with I'd really call it

Page 11

Page 12

a second draft, financial strategy and the assurances associated with it, the implementation plan and assurances and a schedule of the site specific EIR's/ EISes.

This is kind of important because those of that you followed Prop 204 know that having a schedule of implementation is part of the trigger system in Prop 204 and certainly a draft staging plan.

So let me kind of back up to where we are right now.

April for us is an important meeting, an important Bay-Delta Advisory Council meeting, and before I even talk about the questions, as Mike already indicated, what we want to try to do today is get a good discussion of water use efficiently component, the water quality component.

Then in March it's our plan to have, I guess what I'd call a major discussion of the ecosystem restoration component perhaps allocating at least two hours on the Agenda, as well as the levee system integrity component, probably an update on storage and conveyance.

Then at the April meeting what we are dealing with is an outline of the integrated alternatives with the storage and conveyance configurations. And so that's kind of building through these presentations to the point of trying to answer these questions.

Page 13

As we have configured these things come April does that still represent the adequate set of alternatives to get the full assessment done on it.

And then the other issue and this is kind of the programmatic issue Steve and Rick will get into, given the level of detail that one conducts programmatic analysis what kinds of assurances are needed to keep these alternatives moving forward?

And what we are seeing is a lot of the issues that come up tend to lead to the assurances effort.

Okay. Kind of one last formulation of the timeline (indicating) for kind of the whole program, you know, where we are now, continuing in the alternative component refinement, looking at impact assessment, identifying kind of that first preferred alternative with the agencies and, you know, identifying that process moving to the public process and moving on to kind of the final product at the end of next year.

So that's basically the schedule, where we are trying to fit these pieces in and where we are headed in the next couple of meetings with the Bay-Delta Advisory Council.

CHAIRMAN MADIGAN: Questions?

Mary, then Alex.

MS. SELKIRK: I'll try to figure out how

Page 14

to speak in the microphone and look at you at the same time.

CHAIRMAN MADIGAN: It helps if you're two faced (laughter).

Go on.

MS. SELKIRK: I have to say I'm a little breathless as I look at this schedule. It makes me want to make sure that I'm aerobically fit to make it through the next year-and-a-half.

What I wanted to do primarily was raise an issue that came up in the ecosystem restoration work group meeting yesterday that I wanted to convey to the Council.

There were a couple of concerns raised by different people in the work group.

The first was a concern given that what we are looking at as having a draft restoration program plan on the street by late March and preparation for a public meeting on the 8th of April and then review by BDAC at the meeting on the 10th.

EXECUTIVE DIRECTOR SNOW: 10th of March.

MS. SELKIRK: Right.

And according to Dick's schedule that was given to -- presented at the group yesterday the CalFed staff wants comments in on the plan by May 1, but there'll be some time during the months of May and June for interested

Page 15

parties, stakeholders to meet with and have further opportunities to comment on the plan but that the plan will basically be in place by, certainly, by the end of April.

So there was some concern expressed, particularly by Gary Bobker and I think echoed by some other folks at the meeting about whether this was really providing adequate time for review of the implementation objectives and the targets and the attendant actions, particularly with regard to the -- some of the recent flood activity, et cetera, to ensure that the issues raised by the flood are going to be adequately built into the restoration plan.

The second point that was raised by John Mills had to do with ensuring that there is sufficient -- at this point in the schedule that there is sufficient public foundation and support for the ecosystem program because that's essentially what's at the heart of this whole CalFed effort.

And whether or not the comment period that was going to be allowed on the restoration plan really was adequate for ensuring that there was that level of certainty and level of comfort among all of the stakeholder groups.

So I raise that not as a question and scratching my head.

Page 16

You know, I don't know what there is to do about it. I know that we are really faced with this very aggressive and ambitious time schedule but I really want to make the point that there are some people certainly on my work group that are feeling pressed.

EXECUTIVE DIRECTOR SNOW: I'll just make a couple of comments and then I think that the real answer to the question is kind of the proof is in the pudding. I mean, when we get that plan out and we see how people deal with it because we are in the process of modifying aspects of the target, then to digress a moment for some who have followed, we had a draft targets paper that went out in December -- I'm looking to see if that was the right time frame.

UNIDENTIFIED VOICE: November.

EXECUTIVE DIRECTOR SNOW: Oh, in November.

And we received some 200 pages of comments -- is that fair to say, Dick -- so we are in the process of integrating and dealing with a lot of those comments so we hope we are capturing a lot of the issues that people have in their minds as problems with this and we will get that out, but beyond that, one thing that's an issue and it's the problem of level of detail.

We are working at a programmatic level, people are wanting to review at a project level to have really

Page 17

precise numbers in it, but probably the most important thing is that the review or people's ability to impact what's in these plans doesn't end way back here when we do impact assessment.

There's opportunities all the way through this. The only time you start running into, you know, a real problem, you can't respond to somebody's legitimate concern because of your time frame is when you're all the way down in here (indicating) to the final and so we've got all of these different periods and I think what we need to do, particularly for some of the issues that the environmental community has raised recently is lay out that time frame more clearly so they see the windows where there is clear opportunity to analyze, make comments and how we would be able to respond to that.

And we will attempt to do that and lay out those different time frames.

CHAIRMAN MADIGAN: All right.

I have Alex and then Ann.

MR. HILDEBRAND: It isn't clear to me how we are going to come up with a preferred alternative in September and then continue to decide whether those -- the components within that alternative are acceptable or not at some later date.

I don't see how the BDAC can endorse any

Page 18

component or package of components until we see at least two analyses.

One is the analysis of the application of solution principles to that -- those proposals, and the other is the analysis of whether it's the most cost effective way of achieving the objective, and I refer to costs not only in dollars but in water.

And it isn't clear to me that we are going to see that until after we, apparently, are supposed to be picking an alternative.

I don't see how that's feasible.

EXECUTIVE DIRECTOR SNOW: No. Actually, Alex, I agree that you cannot been expected to provide advice on a preferred alternative without knowing those two pieces of information and we have to provide that.

What we would be asking in the April -- at the April meeting is kind of a judgment on this -- these range of alternatives into the impact assessment.

What we have to then bring back as we are starting to ID the preferred alternative is the results of our impact assessment, to be able to provide you advice that, you know, this configuration of alternatives works better than this configuration in terms of meeting the objectives and solution principles and solution principles do include affordability and equity and those kinds of

Page 19

issues that are important.

MR. HILDEBRAND: I believe, although it wasn't discussed this morning, there is also a thrust to get ahead and spend the available money starting this year, and I don't know how we can do that until we've seen some of these things.

EXECUTIVE DIRECTOR SNOW: Yeah, there are some early implementation activities that can be undertaken under existing authorities and obligations.

They simply have to move forward, and category three, environmental enhancements is one example of that, and obviously a number of governmental agencies will be taking efforts to respond to the drought -- I did that earlier this morning, too -- I'm a water guy. It's either a drought or a flood and I forget which it is -- to respond to the flooding, and we would like to see that done in a fashion that is not only compatible with potential long-term but ideally actually enhances where we are going with the long-term.

CHAIRMAN MADIGAN: Ann.

MS. NOTTOFF: I think that one of -- I think your earlier comment addressed half of the concern that the environmental water caucus expressed in terms of how to deal with the ecosystem restoration plan that's under development right now, and that was you talked about

Page 20

how there will be time for public review and I'd like to see some more details on that to see how that works.

But the other part of our concern that we raised is actually the technical capability of fully integrating both the public comments that have already come and the providing -- you know, putting together a plan that is -- does reflect the best thinking in the country in terms of this incredibly complex ecosystem restoration program that we've undertaken and that there be -- so that, you know, there is time for a peer review of a nationally recognized panel of this -- of the procedures proposed here before we get it out for public review so that we have the best product that we can come up with and then that the public is then being asked to comment on it.

I don't see -- do you have a response as to how you would fit that into this snowball?

EXECUTIVE DIRECTOR SNOW: Not in a specific time period, but there is complete agreement that there needs to be -- the term we've been using is blue ribbon panel of not disinterested but not associated with interest in the system to come in and give an objective review, not only of the ecosystem restoration program but kind of other aspects of the program and we do intend to do that, to be able to provide that as additional input to both BDAC and CalFed.

E-014046

Page 21

CHAIRMAN MADIGAN: Tom and then Roberta.
MR. MADDOCK: Yeah.
Lester, could you just, coming back to what Alex was saying and others, what kind of information will be available there prior to September or at September to permit then an assessment of the alternatives so that a preferred alternative can be then selected?
In other words, could -- is there some way you could arm us and, you know, you don't have to have the information but what type of information --
EXECUTIVE DIRECTOR SNOW: Yeah.
MR. MADDOCK: I mean, you may not have all of the answers and the details, but is there a compendium that could be identified, and I realize everybody is working to try to get this done and I'm not asking for a -- the level of detail but only the information that then permits that selection to be made.
EXECUTIVE DIRECTOR SNOW: You know, we could provide something at the next meeting that -- we could send out, as I think we did maybe nine, ten months ago, the list of all of the variables that have to be assessed as you go through NEPA/CEQA, and it's a formidable list and I think we shared that at one point but what would be more useful is if we distilled that to some of the key categories that we have to provide information in order for

Page 22

anybody to make a rational decision, and we've talked internally about how do we make these long almost endless list of factors you have to evaluate into a user friendly type of document, and we can provide that for the next meeting.
I think that would be very useful and timely.
MR. MADDOCK: Thank you.
CHAIRMAN MADIGAN: Roberta and then Ray.
MS. BORGONOVO: I'm just echoing the sentiments of other people.
Part of the problem was you talked about the windows of opportunity, and I think that that's not just difficult for the environmental community but for all of the other groups that want to give input into the process before you come up with that final preferred alternative.
So it was having time to have that feedback and it's come up in some of the other work groups, too, we talked about it in the finance work group and for the work groups to feel that they are contributing to that final alternative they need time to sift through. There was a concern that the number of technical teams that you have working have that work coming so late again that we are not getting the feedback from the groups.
So the concern was that there be time for that, and it was also important for trying to bring in not just

Page 23

those of us that have been following the process for now three or four years, some of us for several decades of our lives, but for all of the people in California that are impacted by it.
And so one of the terms used yesterday in the ecosystem work group which I liked was that CalFed was the wholesalers and we're all the retailers, but the retailers have to be able to explain it to their customers.
And so I think that that was part of this concern over the timeline.
CHAIRMAN MADIGAN: Thank you.
Ray.
MR. REMY: Yes, as I recall, we are the advisory commission to CalFed. We give advice and counsel and CalFed is the one that ultimately I guess has to be the decision making body by which one blesses a preferred alternative or whatever.
Is it possible that CalFed might do something different than this group or is this group's advice and counsel binding?
And if it does do something different, is there a place on that chart where CalFed acts or people will petition CalFed? How would that process work in terms of decision making?
EXECUTIVE DIRECTOR SNOW: Well, let me

Page 24

give kind of a quick overview and then Michael and Roger from the prospective CalFed may want to add.
The decision making authority lies with the CalFed agencies in terms of who has been designated as lead agencies and, you know, responsible parties and that sort of thing so CalFed as the ten entities will render a decision on the final document; however, it's not very likely that you would see these ten agencies render a decision that was not supported by a wide stakeholder community.
And so I think that these efforts have to kind of go along in tandem.
They will make the decision. They are responsible for making the decision, but they are sure going to want to know where the stakeholder community is as they move forward with this.
CHAIRMAN MADIGAN: Roger, do you want to add to that?
MR. PATTERSON: Well, I think Lester is right in that we know that the CalFed agencies together will have to make that decision, but we have this Council for the purpose of trying to bring together those views from the various communities, and I think we've talked about before how important it will be to CalFed to know if, in fact, we don't have a consensus in every particular area

E-014047

Page 25

to know the variance of those views and why those views are held, et cetera.

And so I can't see the agencies wandering very far from the advice of this Council, but it's important that we have the thorough advice, including where there may be differences of use.

CHAIRMAN MADIGAN: Michael.

MR. MANTELL: I would only add that the other opportunity for this (inaudible) -- not only for this group but those documents are out for public review.

So those comments will be factored in but it's inconceivable to me that CalFed would act in a manner that disregards the consensus of this group.

CHAIRMAN MADIGAN: Sunne.

MS. McPEAK: Mr. Chairman, I think this is almost a final discussion about are we getting close?

In most of the other meetings the concern or complaint that I heard before the meeting and coming out of the work groups was that we weren't moving fast enough and now I'm hearing exactly the opposite so that's a good indication that we are making progress, but, you know, the Record of Decision is more than 18 months out.

I have great confidence in the people in this room and in the participants in the workshops that we can get these issues running forward. The blue panel peer

Page 26

review process, for example, should be entirely possible running through much of the impact analysis and preferred alternative even through public review and still have information before us, not to mention the final public review process, and if it's not working, if people aren't comfortable, what was just expressed by the Federal and State agencies is exactly the reality, the thing isn't going to go.

So my frustration is still that we haven't been moving quickly enough.

I'm pretty confident now looking at this schedule that we are getting into some substantive discussion and what we hear today and what we hear April should be moving us towards identification of where we've got some real differences and need to get resolution on it.

EXECUTIVE DIRECTOR SNOW: See, our schedule is already starting to slip (Laughter).

CHAIRMAN MADIGAN: Right, I agree, Sunne.

I have Alex and then Jack.

MR. HILDEBRAND: The item on the Agenda also includes a discussion of the programmatic level of detail and I'd like to comment on that if this is the appropriate time to do so.

I have some problems with the illustrations that are given here.

Page 27

Regarding storage, the objective is not just to increase storage capacity regardless of whether you can fill it.

The objective is to increase the effective water supply, and we should focus on increasing water yield where that yield can be most effectively used in terms of the benefit to the water supply and to stream flow, water quality and flood control and so forth.

This is not just a function of storage capacity. So if we start examining the programmatic business where we can put storage I think that's not an adequate assessment.

Then if you go over to water quality, if you look at the paper by the water quality committee, it correctly states that the objective is to reduce harmful effects of the water parameters of concern.

When you read the parameters that are proposed to be reviewed in the level of detail, it talks as if every dissolved constituent was a pollutant regardless of its concentration or the use to which it's going to be put, it talks of having a single program for addressing pollution.

It's an entirely different kind of thing. The two don't go together.

And in the question of efficiency we seem to continue to focus on sort of the conventional issue of how

Page 28

efficiently does each user use the water and we are not addressing some substantial opportunities for examining the same question on the watershed basis where you increase the multiple use and reuse of water rather than just the efficiency use of any one user.

So I'm apprehensive that we get started on programmatic assessment that really doesn't go to the objectives in some cases of what it is we are trying to do.

CHAIRMAN MADIGAN: Thank you. Jack.

MR. FOLEY: I'm not going to answer Alex's question.

I'd rather just go back to our previous point. I would like to cast my inclination into moving forward on the schedule.

You know, we are in the last third of our life of the Accord and this December it expires, and this was really the cornerstone, I think, that brought about our charge and why we are here today.

I do understand the concern of meaningful public input, but I think when you come out with the more specifics, you are going to get the more public input and honing in on the real issues.

So I would just encourage particularly since the staff seems confident that they can accommodate that schedule, I think we should move forward with it.

Page 29

CHAIRMAN MADIGAN: Thank you.

All right. I have a speaker slip from Mr. Bobker. Gary.

MR. BOBKER: Thank you, Mike.

I'm Gary Bobker with the Bay Institute in San Francisco and the Environmental Water Caucus. EWC has written a letter to Lester concerning issues with the schedule. I want to discuss that because this seems like a good time. We raised issues as to whether the schedule can capture -- meeting the schedule will allow us to get to the long-term solution that we all want.

I want to stress that EWC in raising these issues, we are not nervous about the fact that the process is moving forward fast just because of some vague concerns about the pace.

We have some very specific concerns about whether the pace will allow us to do some very important things and, that is, get to where we want to go and make sure we have all of the tools that we need to get there. EWC is very supportive of the need for a comprehensive long-term solution and that is why we have put a lot of resources, staff, and money into inputting into CalFed.

We intend to continue to do that, but you can't transmute lead into gold at the end of the process if the process doesn't do everything it needs to do.

Page 30

The hopes that we have had for CalFed have been premised on three assumptions.

One, is that for once we had a program project that is about restoring the environment.

It's not a side bar. It's central to the process.

Number two, this was a process that was going to look at every tool on the table unprejudiced.

And, three, it was going to be an exhaustive review.

Now, here we are poised according to the Cal-Fed schedule to start evaluating the impact of the alternatives and are we ready to do that?

Well, if you look at those three hopes that we had, let's sort of assess that for a moment.

Number one, the mission of CalFed to restore ecological health and improved water management, what's the end point?

It's a difficult and complex task to define ecological health but to a certain extent we have to do that.

We have to decide what the end point is, where do we want to go?

CalFed is putting a lot of effort into trying to do that. We are supportive of that. They are not there

Page 31

yet.

Until they are there it's going to be impossible in our view to really evaluate whether an alternative is going to be successful in achieving success and reaching the end point when you don't have a good enough idea of what your end point is.

That's a real problem.

We think we need a little more time to go through the process of completing setting criteria, setting criteria for success basically.

Secondly, in terms of having all of the tools -- by the way, I should also mention that the tools to -- the assessment tools, methodology still needs some work as well. That's a critical part of the technical process of evaluation.

I don't think that we are quite there yet and we need a little more time to do that.

The second part, which is do we have all of the tools, there is a big controversy that's been raging for at least six months if not more about the inclusion of aggressive demand reduction strategies in the tools that CalFed is going to look at, whether it's the water use efficiency common program or whether it's variance of that.

And the alternatives, the environmental community is very concerned that some of the those

Page 32

aggressive demand reduction tools aren't captured in terms of both aggressive implementation of water conservation measures or some of the things like land retirement.

I want to stress by the way that the insistence upon having land retirement measures -- land retirement for water use efficiency, not just land retirement for say drainage is not because we want to see land taken out of production for its own sake.

It's because we see that potentially the very important tool for reaching a durable reachable long-term solution and right now the land retirement for drainage we think that's good for water quality. We don't know that that's going to help us reach some of our other water conservation goals nor are we confident that some of the incidental retirement that might occur for habitat purposes is going to do that, too, because we don't really know the fate of the water.

So there's real concerns about whether some very feasible options are going to be evaluated.

It's not necessary for everyone to agree that they are right. We don't have to argue about them from a policy level. The point is if they are feasible options we should be looking at them.

If we are not, that's a real problem.

Third, we want an exhaustive review and one

Page 33

thing that's never happened with CalFed is from the beginning we sort of set this artificial deadline. The three years popped out of nowhere, you know, apparently because of the Accord. No one ever really sat down I don't think from the beginning and said as you would in an ambitious EIS/EIR process what exactly -- what time do we need to do the job right?

What I think is we had an artificial deadline we tried to juggle and I have a lot of sympathy for CalFed staff and for Lester in trying to meet that artificial deadline but I don't think it's going to work to do some of the things that we need to do.

I want to comment, by the way, on the folks -- there are a lot of folks who say that the Accord is kind of setting the parameters here.

The Accord is a historical footnote. The Accord is now captured in our Water Quality Standards, our operating arrangements. Most of what's in the Accord is actually now part of the landscape. We are going to be living in that landscape for quite a while and I don't really think that that's what should be driving us.

And, frankly, although, you know, Sunne referred to the fact that, you know, a lot of folks felt that things weren't moving fast enough, most of the people that I've talked to both, you know, within the agencies in

Page 34

the stakeholder community, privately all agree that the schedule is a joke but nobody is willing to make an issue of it.

Personally, I think that if you're not willing to make an issue of it when you know that it's inadequate then you have to shoulder some of the blame for if the process goes awry.

We are at a crossroads right now I think where we can continue to go on this schedule without really assessing exactly what we need to do these foundational actions, defining the end point a little better, making sure we capture all of the options, or we can continue down this path.

And the problem with continuing down this path is it's very hard to correct these kinds of problems that I referred to at the end of the process. You really kind of have to address them now.

As I said, EWC has put a lot of energy into CalFed. We continue to have hopes for CalFed and we really think that in order for CalFed to be successful at achieving a long-term solution it has to grapple with this issue now and we urge it to do so.

I guess that's about all I want to say, Mike.

CHAIRMAN MADIGAN: Okay.

Lester, do you want to say anything?

Page 35

EXECUTIVE DIRECTOR SNOW: Yeah.

I think what I would say just kind of in response to these issues is that, again, we need to start bringing those more detailed documents and they will at that point speak for themselves on how we move forward on this.

So to some extent, particularly for BDAC, it becomes an incremental issue of making judgments about that.

What I'd like to do if we can is kind of move on and start dealing with some of the programmatic issues and level of details stuff that's also quite important to decision making.

And Steve is going to start off with that.

CHAIRMAN MADIGAN: Mr. Yaeger.

MR. YAEGER: You are going to have to bear with me a little bit today. My voice -- I've got a little chest cold thing going but we'll try and deal with that.

I'm sure you recognize this diagram. We've been using this for several months since the start of Phase II, try and describe the steps we are going to go through in Phase II.

Lester has given you some of the milestones we are looking for, what kind of products you are going to see in the April time frame, the outline of the alternatives

Page 36

and then later on in the August, September time frame, other products, such as a draft analysis of impacts, the draft facilities operation concepts, and draft assurances.

What we wanted to do this morning was to focus again on the programmatic level of detail to reinforce some of those discussions we've had over the past six or nine months and get a little better understanding of what the products are going to look like that you're going to see in the April through September time frame.

Again, to back up a little bit, we've been working in this area for the last three or four months refining components, detailing the interactions between components and we'll be working in Step 2 and Step 3 in this time period between now and April in bringing together the integrated alternatives and bringing those outlined alternatives to you in the April time frame.

The impact analysis and the draft environmental document will continue after April and up through September and you'll be seeing those products, of course, in the August, September time frame.

We feel this need to go over the level of detail again in order to be clear, as I said earlier, so when you see these products in April, the programmatic description of the alternatives and the later products, that there won't be confusion over where we are going in

E-014050

Page 37

this stepped process.

It's been expressed, you know, a lot of concern over why we are at the programmatic level, why we haven't gone straight to the site specific analysis level. So we wanted to back up and again walk through some of the reasons and the rationale for working through this in a stepwise process, working at the programmatic level and in Phase III moving into the site specific analysis level.

These are some of the main reasons that we have identified some of the advantages of moving forward at the programmatic level.

Number one, it provides opportunities to -- that should say analyze -- a wide range of components and prove out the concepts, develop a better understanding of benefits and adverse impacts.

We've talked a lot over the last several months about the complex interrelationships between the components.

We are dealing with four resource areas; levees, water quality, water supply reliability and ecosystem, and as we bring together the components and look at the interactions between them that's better done at the programmatic level before you move forward into site specific.

Just to cite a little example, for instance, in

Page 38

our water quality program you'll be hearing some more about that this afternoon, but we have some elements of that program that address toxic source control.

In the analysis of benefits and impacts as we look at that there are, of course, interrelationships with the ecosystem restoration program.

You have linkages and impacts with wetlands and habitat development there. You also have linkages and impacts with the storage element and even with the conveyance element.

And so by approaching it at a programmatic level it allows you to prove out the concepts, how does the toxic source control interact with the habitat restoration item? How does it interact with storage and conveyance?

And you are dealing with it at a level that allows you to understand those relationships better at that initial stage before you start moving into the site specific parts of source control.

We actually already talked about this second bullet, it allows more effective evaluation and unnecessary complexity. We have so many actions within our programs that the interactions and the linkages become much too complex to try and analyze and understand and to calculate benefits and impacts unless you do it at a programmatic level and then it provides this better understanding of the

Page 39

system, the interrelationship and the linkages, promotes more efficient use of the time and resources. So that as you're moving through the analysis of the programmatic level you can make adjustments and changes to the programs as impacts become apparent and you don't risk moving to the site specific and finding an impact that you weren't aware of and being forced to move back and start all over again with a major change in the program.

Programmatic analysis -- is that high enough for people to see -- provides a sufficient level of information for decision making without being so cumbersome that you are not able to sort through the volumes and volumes.

For instance, if we had gone to site specific analysis of our program, we would probably anticipate that the stack of documents would be about that high (indicating) and it would be impossible to sort through all of that information, understand it completely to make the decisions that need to be made.

And the other real important part of programmatic is it allows for what we call incremental agreement building, of building agreements around the assurances that will link the programs and guarantee that the ecosystem program does move all the way to completion and that water supply reliability does move to completion.

Page 40

And it provides for this incremental decision making, too.

Lester showed you some of the types of recommendations you are going to be asked to make in the September time frame.

There will be other types of recommendations as we move through the final programmatic environmental documents and then further as we get into site specific environmental documentation then there will be recommendations that can be made at the site specific level, also.

We have a couple of examples I'd like to walk through to, hopefully, try and develop a little better understanding about how this works.

And, again, this is a hypothetical example.

Please don't take any of the information we are presenting here as indicating what the program is laying out at this point, but I want to walk through some of these operational concepts that we are working on in this phase of the program and then show how those might evolve into Phase III into site specific.

Again, the way this ties into the recommendation, as we said earlier, you'll be seeing these -- an operational concept plan and later in the August time frame it will tie in the concepts with

Page 41

the -- the operational concepts with the facilities.
At this stage we are working with our technical teams and stakeholder groups to try and develop these concepts for operation of the facilities.
This one focuses on north of Delta Storage.
For instance, there are several concepts being developed about x2 protections.
Should those protections be enhanced?
Should they be relaxed under certain circumstances?
There are concepts being developed for diversion points in the Sacramento River where you'd be moving water into north of Delta Storage.
You'd have a diversion point on the Sacramento River between Chico Landing and Verona, also concepts for other diversion points.
Similar concepts for how the water would be moved into storage.
It's been suggested at some point that we ought to only move water into storage when the second peak of the flood season has passed in order to preserve the geoflubial (phonetic) classes in the river and further that the diversion would be limited by the presence of salmon.
This is the level of the operational concepts that we are working on in the programmatic level.

Page 42

I'm going to skip that one.
In contrast that in Phase III then insights specific implementation those types of conceptual operating parameters would move into -- more towards criteria and you'd start defining the x2 criteria at a lot higher level.
Specificity would be defining the diversion point on the river at river mile Y, river mile 200, river mile 23, whatever that is.
And you'd be defining more precisely how you would move water to storage.
You might arrive at the agreement that we would only move storage -- water to storage north of Delta whenever river flows are above 45,000 CFS, and it would be just the second river peak of the year that we'd start diverting and it would be -- diversion would be limited by realtime monitoring detection of z number of salmon smolts. So we'd be getting down to that level of detail on the operational concepts in Phase III.
Similarly, on the assurance concepts that go with the facilities and with the operating concepts, in this Phase II, programmatic phase, we are working on concepts for standards that would implement that x2 that we are talking about, concepts for agreements and contracts to implement the diversion concepts that we talked about, to guarantee financing of the storage and to assure

Page 43

implementation of the water supply part of the program.
And then by contrast when we get to Phase III of the program, then we'll be getting down to another level of detail on those assurances.
We will be looking to negotiate precise standards to implement x2 criteria, for instance.
We'll negotiate for revisions of contractual agreement around those criteria for diverting water into storage and for contractual agreements to finance the environmental storage and water supply storage and so forth.
So that was kind of a quick walk-through on the operational concepts part of the program and the assurance concepts part of the program at the programmatic level.
And I'm going to hand off now to Rick Breitenbach, who is going to walk you through the alternatives outlined and show you some examples of how that differs between programmatic Phase II and the site specific Phase III.
CHAIRMAN MADIGAN: Actually, Steve, what I want to do is take a break here because Director Kennedy has arrived and Colonel Peixotto has to be out of here by noon.
We had mentioned to you earlier that at some point this morning we would take a break and give you a

Page 44

status report and assessment of the flood of 1997.
That time is now.
We'll start off with about a five-minute video showing you some of the activity from the flood.
Director Kennedy and Colonel Peixotto then will give you their comments on what took place and maybe be available for a few questions if you have them.
And, certainly, Roger Patterson is here to respond as well and then Lester has some overheads to talk about some of the linkages of the flood management actions with the actions of this program.
And I understand, Tom, that you have some things that you'd like to distribute as well.
MR. GRAFF: (Affirmative nod)
CHAIRMAN MADIGAN: Lester.
EXECUTIVE DIRECTOR SNOW: Well, I think to start off we just want to show kind of a quick video, a little less than five minutes.
It's just -- nothing that's polished but kind of gives you a feel for some of the flood damage that was done and some of the flooding incidents shot in a helicopter with just some narrative as it's being shot just to kind of give you a feel and then we'll ask Director Kennedy to kind of talk about some of the issues that have happened during the flooding.

E-014052

Page 45

So if we could go ahead with the video.

(Whereupon the selected High Water Scenes video was shown after which the following proceedings were had:)

CHAIRMAN MADIGAN: Well, any questions?

Dave, thank you very much for coming by to join us this morning.

Everybody, obviously, is very interested in this whole question and what you have to share with us.

DIRECTOR DAVID KENNEDY: Good morning, Mr. Chairman and members.

I believe you are going to have Colonel Peixotto afterwards, is that right?

CHAIRMAN MADIGAN: (Affirmative nod)

DIRECTOR DAVID KENNEDY: He and I had a little bit of a duel yesterday over across the street.

Well, as you saw from the video and I think you are all aware, we've had a storm of historic proportions here in Northern and Central California.

We are still picking up the pieces and, in fact, the San Joaquin Valley there is still a lot of high water coming through.

I don't know if Alex has the update but I think

Page 46

Mossdale is projected to increase just a little bit more before it goes down.

So what I'll do is just review very briefly a few of the background facts and I don't know if you want to ask me questions or take on the Colonel, whatever you'd like to do.

Putting it in context this actually is a historic storm in terms of how big it was.

On the Feather River we had the largest inflow to Oroville reservoir that we've ever had.

The best we know it's the highest three-day volume that's ever come through the Feather River canyon at that point, about 1.4 million acre feet came into Orville reservoir over a three-day period and if you translate that out, those are -- we had the better part of a day over 300,000 cubic feet per second of capacity.

We were at least, I noticed on the video they had Oroville spilling at I think it was 120. It was on the way up to 160,000 cubic feet per second, which is a release of about 320,000 acre feet in a day.

So it went up to the highest that we've ever had.

Previously in '86 we released 150,000. This was 160,000.

You might have seen some comments or press

Page 47

pressed to the effect that on New Year's day there was a period of about eight hours where we were actually being told by the meteorologist that we could expect inflows of 400,000 cubic feet per second and there was information put out to the city of Orville and others that we were probably going to have to use the emergency spillway.

It was on that basis that they evacuated Oroville.

Now, fortunately, those flows did not materialize. That was projections of what the weather service calls QBF's as to what was going to be coming over the next 12 to 24 hours.

A lot came but that that they were projecting on New Year's day did not come so we did not get up to the inflows that were projected. But there is starting to be quite a bit of discussion about that and I wanted to just mention that.

We had two very serious and tragic breaks on the Sacramento River flood control system, the one on the Feather River and the one over at the Sutter bypass where there was a loss of life in the RD 784.

It's interesting that on both of these cases as best we can tell the channels were running at about at capacity; that is, these were not overtopping breaks.

These were breaks in some form of seepage

Page 48

through the levee.

I don't want to say very much about it because, of course, we are already starting to be sued about this and there will be lots of time to sort out exactly what did happen, but I think it's worth noting that the water did not overtop the levee on either the Feather or the Sutter bypass.

It was some form of seepage that got away.

Again, getting putting that in a perspective or context, altogether there were several hundred bites on boils throughout the whole system.

That is, the Feather break, there was a boil being actively worked on and it just simply overwhelmed the people working on it and the levee collapsed on them.

But throughout the system as a whole there were, I think, probably two to three hundred significant boils that had to be worked on and these two in particular got away.

Now, going on the San Joaquin system there were more breaks than we had in the Sacramento.

I think there's probably 12 to 15 breaks depending. There's several where there were multiple breaks in a given reach of levee but on the order of 12 to 15 breaks.

And those are still, of course, being worked

Page 49

on.

The two breaks up in the Sacramento system have both been closed.

That is, the original breaks have been closed.

But in both cases we had to cut breaches further down, further south on each of those districts and in order to drain the water out on the -- one on the Feather, the water is backing in there again from the Bear River and re-flooding some of the area that's been flooded.

That's happening to some extent also up on the Sutter bypass break.

Now down on the San Joaquin system shifting back to there for a moment it's been harder to get into some of those areas. They have been so wet and they were basically inaccessible so the Corps has had a hard time coming in and getting some of those breaches fixed. The Corps has been very responsive to the State in all of this.

The basic way this works is the local districts do their best. As soon as it gets beyond their ability to respond and they call us in.

We size it up as quickly as we can.

If we can handle it with State crews like CDF or CCC or the prisoners, then we deal with it.

If it's beyond our ability, then we turn to the Corps quickly.

Page 50

There have been a couple of dozen incidents here where we have asked the Corps to come in.

In each one of them we actually write a letter and describe the situation and they respond.

I should clarify that they don't wait for the letters to be done.

It's hard for me to imagine an agency being more responsive than the Corps has to the State in this case.

They had people in our offices, in our flood center, working with us as each incident unfolded and in a number of instances they had contracts out there underway as the paperwork was being done.

So while some of these don't go as fast as we'd all like, the Corps really has just responded in a remarkable way in each instance to try to get contractors on their way and out in the field and working.

One other area that's going to get more flooding as we speak is Tulare Lake.

It is being flooded right now.

There is a big snowpack up there. I think yesterday I heard there is maybe 20,000 acres under water.

It's divided into a lot of cells and I was told that there would probably be 30,000 today.

There is a lot of water still coming to Tulare Lake from the Sierras.

There is, of course, a big snowpack up there so Tulare Lake is going to be dealing with water for quite a number months to come and you'll be hearing a lot more about that.

The Governor has appointed an action team to respond and make recommendations to him.

It is composed of State officials and then we've also asked the Federal officials to participate which they are doing.

Basically, the Governor has asked that he get a report within 30 days of when he asked for it, which will be the 10th of February and then there will be another report four months from when he asked for it.

The FEAT as it's called, Federal -- I mean the Flood Emergency Action Team is working every day to deal with this.

Basically, we are responding to three or four specific requests of the Governor.

One is to make sure that the initial response is well coordinated and as effective as can be.

Then to deal with fixing the system in the near term because we are only halfway through the winter and we've still got quite a ways to go and we may have more of this before it's over.

Page 52

And then we are supposed to report back with recommendations on the long-term as to what needs to be done.

Let me just comment briefly about that because I think some of that relates to the work that this group is doing.

In the -- first, in the Sacramento River system to some extent the system operated as it's been designed to do.

We have quite a bit of reservoir storage. We have bypasses in the Sacramento River system, and if you'd put aside these structural breaks that have occurred in the system, the system passed the water that it's intended to pass.

Now, on the San Joaquin system it's really a different matter. There is large areas ponded and I think that we really need to undertake a very large scale review of the San Joaquin system as to the basic design philosophy there. We need to ask ourselves such questions as more bypasses. There are some bypasses in the San Joaquin system but not in the north part of the system.

The south part of the Delta for all practical purposes where the San Joaquin system comes in is a choke point for that whole valley, and one of the things that we all need to address is do we need some form of bypass

Page 53

equivalent to the Yolo Bypass in the San Joaquin system?

Now, it's easy for us to say and raise those questions conceptually. Whether it works out in the practical land use issues down in that part of the Valley are another question but it needs to be very seriously looked at because the San Joaquin system just does not have the capacity to handle these rain type floods that we are having.

It's designed for a snow type flood and snow melt flood and it's had to do with a huge amount of rain that it never had to deal with before.

So there are some very basic questions there about the design of that system.

I think some of these get over into such areas as habitat, restoration development, if we are going to need big ponding areas or bypass areas, then certainly they should serve dual purposes of -- well, several purposes.

In carrying flood waters they should be able to be farmed just like the Yolo Bypass is when it's not flooding and certainly this looks like an opportunity for some habitat restoration so we've started some discussions with Lester and I'm sure you are going to be hearing and seeing a lot more about this in the coming months.

I think, Mr. Chairman, I'll just stop there and see if you folks have any questions you'd like to ask me.

Page 54

CHAIRMAN MADIGAN: Why don't we ask Colonel to come forward, Colonel Peixotto.

Thank you very much for being here today, sir.

And, certainly, a terrific report by Director Kennedy in terms of cooperation of the Corps and I'm sure everybody in the state appreciates that.

COLONEL PEIXOTTO: Thank you very much, Mr. Chairman.

I've been involved over the years in a number of disasters in a number of states and I've never seen the cooperation that has occurred between the State and the Corps that has occurred here. It was a marvel to see. It was a marvel to see how we worked together with this series of reservoirs and played them like a piano, cranking open a little here and shutting down a little here, trying to keep the flows so they would cause the minimum damage, and it is really a marvelous thing to see.

Mr. Kennedy described very well the levee system and the status of that and what happened, and I will not repeat that.

There is another very important feature of the flood control system in the Valley and in the Delta, and that's the reservoirs.

There is 22 reservoirs that hold significant flood control storage.

Page 55

Now, some of these were built by the Corps, some were built by the Bureau, some were built by the State, some built by the cities, some built by irrigation districts, built by a whole host of agencies, but they have some degree, some a lot, some a little, of flood storage in them.

Now, these 22 reservoirs, we've heard a lot about the 1.6 billion dollars in damages.

These 22 reservoirs by themselves prevented two billion dollars in damages that would have occurred had the taxpayers -- had the public not made that investment over the decades, two billion dollars of damages that would have occurred.

And so there is a half full part of the glass, too.

It's certainly half empty and we look at that and work on that very hard, but the public investment made over the years did have a lot of benefit.

And that's not -- that doesn't even include -- the two billion dollars does not include the levees that did not fail and a lot of the levees did not fail.

The Corps' role, as Mr. Kennedy said, is as a back up to the State during the flood fight.

Our role of course in the long run is to work

Page 56

with the State and the local entities to provide long range flood protection.

I'd like to go over just a couple minutes on what happened -- what the Corps did during the disaster and I'll do it in four phases, during and after, four phases.

The first is the emergency response, the flood fight.

And we were called on by the State 28 times, and, thank you, Mr. Kennedy for your kind words on our responsiveness.

Within hours there were contractors on-site and we had 28 different instances.

18 are complete, ten are still underway in the flood fight and they are still cropping up because levees are still -- levees are saturated, the water is high. The levees are in danger and they are constantly patrolled and when a problem is found -- and we started two yesterday, two additional flood fights -- we are there to help when the State capacity is exceeded.

Of the 28 there is ten in the Delta, ten in the Delta.

They range in size from $59,000 that was spent at Butte Creek to 2.2 million dollars at the Sutter bypass for the emergency response.

To date the Corps has spent 17 million dollars

Page 57

on the emergency response full Federal.

The second phase is the initial recovery. It's very important for all of us to get some degree of flood protection back.

A lot of damaged levees, reservoirs full of water, let's get some flood protection back. We are only midway now through the flood season. We have the snow melt ahead of us. We can't wait for dry weather.

We've got to get the reservoirs evacuated so we have that first line of protection. The reservoirs remain undamaged, undamaged.

They have water in them but they are standing there ready as the first line of defense. We have to get the water out and we are doing that in non-damaging flows so that the reservoirs can be there to hold the water when the next rains come.

So the second phase is to get the water out of the reservoirs, recover that flood storage and to make some initial repairs, make initial repairs on levees that have been damaged.

And we are working hard on that. We've got 27 million dollars under contract at full Federal expense right now to make those repairs.

So that's a total of 41 million dollars just through the Corps of Engineers that's come into the State

Page 58

of California to help the citizens in this disaster.

So that's where we are now.

Phase III, the final restoration so that come the next flood season next October that we are ready.

We are not going to be ready in a couple of months but we have to be ready for the next flood season. Who knows what it will bring. Hundred year storms seem to be occurring very frequently.

That final restoration is going to be a big task and as we look at that final restoration we'll be looking at such features as nonstructural features, but we don't have a long time to deliberate on that.

And so our primary focus is going to be repairing the levees, making final repairs to the levees.

We're making initial repairs now, making final repairs and that's going to take a supplemental appropriation out of the Congress and the magnitude of that is still being developed but we are talking hundreds of millions, not tens of millions to make those final restorations.

Okay. Long-term, looking at the long-term. Mr. Kennedy mentioned the need for a system wide assessment.

It's absolutely clear that we have to do and do quickly a comprehensive survey to identify the flooding

Page 59

problems and the solutions and those solutions will not necessarily all be structural solutions but flooding problem solutions, we have to go out and want to go out into the small communities. There's many small communities out there that with a few enhancements, flood control enhancements, can improve their protection dramatically, and we want to go out and hit those small communities very quickly.

We did this in Arizona after the '93 flood in Arizona -- '91 flood, excuse me -- and that was very effective.

And we found that during the flood there was a problem with -- we certainly don't know what rain is going to hit the ground. Once it hits the ground maybe you have a better handle on what's going to happen, but we've got a lot of models, model for this reservoir, model for that reservoir, model for this stream but they are not integrated and we need an integrated model and we see that as a long-term step, also.

So what are our preliminary conclusions from this?

They are general, but it's clear that there is many inadequacies in the current flood control system, especially in the San Joaquin Valley.

There is a clear need for additional storage.

Page 60

When vast quantities of water arrive, they have to be held and channeled and then released out into the ocean.

Now, that additional storage can be onstream storage, it can be offstream storage, it can be bypasses, it can be floodways or other ways of absorbing that blow of water and then metering it out into the ocean in a nondamaging way.

And then, finally, the final conclusion was that we'll always have difficulty in predicting storms but we need to have better predictability when the waters are on the ground and that's the need for the integrated model.

Mr. Chairman, that concludes my remarks.

CHAIRMAN MADIGAN: Thank you very much, Colonel.

Let me ask Mr. Patterson if you have any comments and then we'll open it to questions for the Colonel or the Director.

MR. PATTERSON: Thank you, Mike. I would only add a couple of points from the Bureau of Reclamation standpoint, sort of emphasize Dave Kennedy's point about the size of this storm.

I think the December January precipitation at Blue River Canyon, which is above Sacramento here and above our Folsom Reservoir was 77 inches, and that two month period it was, I believe, seven inches higher than 1955 and

Page 61

it was the precip record.
Folsom was one of those facilities that was strained mightily in the 1986 floods and we managed to come through this in about as good as shape as we could have hoped.
We did get up to the design levee releases of 115,000 CFS for about a 24 hour period.
We had 252,000 CFS coming in at the peak, which was 50 or 60 more than 1986.
So the size of this storm was extremely large.
One other thing that I think the agencies that tried to manage these floods have done since 1986 that seemed to, I think, had some pay off was the joint operation center that we have put together.
And several of the agencies previously have been co-located in downtown Sacramento in the resources building.
About a year or so ago Dave Kennedy's operators and the Bureau of Reclamation operators, the National Weather Service, the Flood Forecast Center, all located out together out about Watt and El Camino and that's where the 24 hour flood center is established for something like this and it's really a nerve center of communication for getting information out and being able to have weather forecasts quickly turned into inflow projections, into forecast of

Page 62

reservoir operations and downstream flood stage projections.
And it was quite a sight to be there. We all had people on duty 24 hours a day from about the day after Christmas for about ten days, but it's progress in the right direction and I think it actually helped a lot, at least from our standpoint and we are primarily concerned with the reservoir operations of the CVP.
I guess that's all I'd add.
MS. MCPEAK: Thank you, Roger.
MR. MANTELL: I was just going to add a couple things, particularly to what Director Kennedy said. Our Department of Fish and Game established an incident command center as well to be able to respond rapidly to the needs for permits and repair authorizations.
And my understanding is the Fish and Wildlife Service worked very closely with the Corps to expedite needed repairs in terms of the potential impacts on Fish and Wildlife resources.
And just to amplify also on the Governor's executive order in this Flood Emergency Action Team, it's an offshoot of the Water Policy Council, it's chaired by Doug Wheeler, the secretary for resources.
As Dave mentioned, all of the key State officials are represented on it. We've had great

Page 63

participation from our Federal counterparts, and we have formed, also, local citizen action advisory teams, the first of which will formally meet next Monday in Yuba City -- or is it Marysville -- it's Yuba -- and that's a meeting open to the public and we can provide information on that.
There will be additional meetings in the Modesto area, Manteca area in the coming weeks as well, to get local input.
And particularly relevant to this group is one of the tenents of the executive order, as Dave mentioned is to advise the Governor on long-term needs and opportunities but a phrase was added by the Governor, to make it consistent with CalFed because we wanted to ensure that actions weren't taken looking at the long-term that ultimately then CalFed was going to determine through this process. It needed to be done in a different way so as much as possible we want the long-term look to be consistent with the kind of thinking that's going on in CalFed.
MS. MCPEAK: Terrific.
All right. We'll open up for questions, particularly to Director Kennedy and to Colonel Peixotto.
Yes, Mary.
MS. SELKIRK: I'm Mary Selkirk with East

Page 64

Bay Mud and I suppose it's a question for both of you but maybe first to Director Kennedy.
I was happy to know that this -- the Flood Emergency Action Team is going to be looking at long-term solutions because I think there obviously are some potential great overlaps with the work in CalFed in terms of habitat restoration.
What I'd like to hear a little bit more about is whether there is a consideration of maybe changing our language from flood control to flood management given that we clearly live in a flood prone State, the Sacramento and the San Joaquin Valleys are both flood plain valleys have some significant width.
So I wonder if you could comment on in the long-term thinking what kinds of measures you guys are considering.
You mentioned ponding, additional bypasses, flood byways, that kind of thing.
DIRECTOR DAVID KENNEDY: I think you'll be happy to know we changed the division in our department some years ago from flood control to flood management.
I think most people involved in flood management look at it that way, that we are going to get these high flows and we have to figure out ways to manage them and there is not just one way to do it.

E-014057

Page 65

Historically it was a combination of reservoirs and levees, plus in the Sacramento Valley and in the southern San Joaquin Valley bypasses.

All the conversations that I've been in this month have been people observing that we have to look at this in a broader way involving land use and bypasses, ponding easements.

So I think that basically the people that are going to be going forward with these recommendations are thinking in pretty broad terms that we need to re-think or enlarge our thinking about the whole approach.

MS. MCPEAK: Colonel.

COLONEL PEIXOTTO: I think you heard the same kind of language in my remarks, as we look at the long-term.

That's clearly on the Agenda.

We've changed our name to flood damage reduction. So there has been some name changes but -- you know, a name is just a name, and the philosophy of looking at all avenues, and you heard both Mr. Kennedy and I talk about bypasses and floodways and things like that, and I assure you that as the long-term planning proceeds that those are going to get full consideration.

MS. SELKIRK: I did have one specific question I wanted to ask about that because you mentioned

Page 66

that there are considerable funds that are going to be spent to do major levee repairs over the next several months.

Is there thinking going on, I imagine there is, but about what levees will take priority?

Maybe there's some that should be not repaired at this point until, you know, April or June or until spring flood?

I mean, what's the thinking about how you make those kinds of decisions?

COLONEL PEIXOTTO: Well, certainly, there's some that can't be repaired until then by simply the physics of access.

As far as leaving some unrepaired that's not a decision that has been made.

As we do our analysis, in order for us to get in to repair a levee there has to be more benefits for repairing it than the costs of doing the repair. So the benefit cost analysis that will go on before the levee breaks and there may be conceivably some are that are decided not to be repaired because the benefits don't exceed the costs.

MS. MCPEAK: I've got questions from Alex and then Tom and then Tom and then Stuart and then Howard.

Alex.

Page 67

MR. HILDEBRAND: Mine is more of a comment than a question but it relates to Mary's thing.

My experience in the past month with floods was a lot less extensive than Dave's and the Colonel's but it was a good deal more intimate, I can assure you.

I'm also President of the San Joaquin River Flood Control Association, and after the experiences we had in '95 we had a lot of discussions with the Corps and the DWR and the other entities handling flood control in the San Joaquin River system and I must agree that this time they did it right.

We had a flood approaching biblical proportions, although it could have been worse yet, but they did operate the dams very well, good coordination, good communication with the flow forecasters and so forth, and also very good cooperation, I would agree, in flood -- both the flood fighting and now in the flood repair, although the latter is a little bit inhibited by the paucity of experienced contractors to do this kind of work.

But getting down to the solutions I don't doubt that there are some opportunities on the San Joaquin for bypasses, although I don't think the terrain lends itself as well to that as it did on the Sacramento.

But there are at least three other approaches

Page 68

on the San Joaquin that have been studied and discussed and they just never got anybody's attention until we have a disaster to bring them to the floor.

One is that the -- what's happened -- well, historically before we had levees and dams what happened in the river system was that it -- when the river rose to high stages, it overflowed the grasslands and wetlands and absorbed those peak flows and then flowed back into the river later on.

Now we've built all these levees and that doesn't happen anymore, and the San Joaquin River management plan, which was developed here and -- which an item in it in the February 1995 publication proposed that we restore this overflow in a controlled manner so that instead of relieving these peak flows by breaking levees all over the place we have controlled overflow again as we did historically.

But that never got anywhere because the institutional problems.

The Corps made a very good reconnaissance study, but, you know, each agency has a single purpose sort of agency and we don't seem to be able to get things done that involve a multipurpose approach and a lead Agency that can handle that properly. So that's one thing.

Another thing is that there is no channel

E-014058

Page 69

maintenance in the San Joaquin River system downstream of the Merced River as there is on the Sacramento.

And what's happened is that over the last few decades the bottom of the river has been silted up to typically eight feet higher elevation than it was, and this reduces the carrying capacity of the channel proper, causes the water to rise out of the levee system -- out of the channel up against the levees sooner, starts soaking them up sooner. Furthermore, as has been mentioned, the levees in the San Joaquin River system from Merced down for the most part do not overtop.

The problem is this business that they are not built with the adequate cross-section to withstand the hydraulic pressure on one side with dry land on the other side. They just aren't adequate width.

Now, if you dredge this channel as we have been proposing for years and use that material to beef up the cross-section of the levees, then you won't have all of these levee failures.

The levee failures I'm familiar with all occurred because of the lack of levee cross-section.

Then, last but not least, the one dam on that river system is very small compared to its watershed as compared to the other tributaries is the Friant Dam.

The Bureau has established that it's physically

Page 70

possible to more than double the capacity of that reservoir and some of us made a yield analysis that showed the yield and cost ratio similar to other opportunities whether you're talking Arvin or Los Banos or Grande or something else and there is far more benefit available from that increased water supply. You not only get the flood protection but it can do a great deal for the environmental flows, fish flows, water quality and water supply downstream.

That, again, was endorsed by the San Joaquin River management plan but nothing has happened as yet.

So we hope those things will all get on a radar screen now and get a little more attention.

MS. MCPEAK: So the question is what do you think about that? Dave or Colonel Peixotto, do you have any comment?

DIRECTOR DAVID KENNEDY: Well, I think those are all things that now people are going to take from the abstract. You know, the effort that Alex was talking about, our department's been very involved in it, the San Joaquin River studies, but now we've had a demonstration really of why all of these things need to be taken very seriously.

So, hopefully, in the re-evaluation of the San Joaquin River Flood Control Project, which is an authorized

Page 71

Federal Flood Control Project, and I think as we start into that I think all of this will now have a very real world meaning to it.

COLONEL PEIXOTTO: I believe I heard a compliment in there and I believe we got that down on the record. I appreciate that.

The public energy arises when you have an emergency such as this. The half-life of public energy is rather short and it's -- from the Corps' perspective it's vital that we start this planning, this long range planning and not have it be long range but we start it quickly and we are seeking -- the Corps is requesting some money in a supplementation appropriation if it comes to pass to allow us to initiate the planning -- the system wide planning very, very quickly and reach some deliverables very, very quickly and the timelines will be very compatible with the time lines that we saw up here for the CalFed.

And the issues that Mr. Hildebrand has raised will clearly be part of those.

MS. MCPEAK: Tom Graff.

MR. GRAFF: Thank you.

Looking primarily at the longer term problems and opportunities that have been raised by the tragic circumstances that you've have already discussed some issues have arisen prior to a letter that I sent to Senator

Page 72

Feinstein on the 15th of January that's in the packet (indicating) and another document I'm going to distribute in a minute where some have made a big point of the endangered species act as an alleged problem and sort of a major issue in relation to the flooding that occurred perhaps and the possibility of repairing levees and the like to make sure that future floods don't occur.

The point -- probably the major point of my letter to Senator Feinstein was to say that if we are going to look for causes and for solutions, we should look a whole lot more broadly than the Endangered Species Act as a problem.

Nevertheless, apparently Congressman Herder and Congressman Doolittle are seeking a hearing in Washington before the House Infrastructure Committee, apparently primarily oriented to the endangered species act and its impacts on the California situation.

Our view in the letter to Senator Feinstein since promoted elsewhere is that there really ought to be a broad scale independent inquiry independent of Federal, State and local governments, along the lines of the Galloway Commission that followed the Mississippi River flood of 1993, that we really missed an opportunity in California after the '86 flood to have such an inquiry.

An inquiry didn't, in fact, take place until

Page 73

after Auburn dam was defeated on the floor of the House of Representatives in 1992 when a National Academy of Engineering study was done but it was limited to the American River only. The American River as it turned out was one of the places where the operations were most easily handled the floods that occurred in California this year.

So this idea of a broad scale independent inquiry that really works broadly in the way of both Director Kennedy and Colonel Peixotto testified is desirable, is something that we very strongly feel out to occur.

And then to take it just a little bit further in terms of the substance of what that inquiry ought to look into, the document that I just circulated and I don't have enough for everybody in the audience but I do have some extra ones, is a six page quick overview of the remarkable overlap between activities that can be undertaken to improve the flood management system and activities that would provide ecosystem restoration benefits.

This is something -- a document prepared by Dr. Philip Williams who has long experience.

In fact, he and I back in 1973 worked together in the lawsuit to prevent the construction of Auburn Dam and analyze the flood -- he analyzed the flood capabilities

Page 74

of the American River and I put the testimony on.

It shows my age.

Anyway, I do think that there is this great opportunity that we need to look broadly at the overlap and, of course, that's relevant for this Council and for CalFed between improving flood management and ecosystem restoration and that we ought to do it in a -- with the help of a blue ribbon independent commission.

MS. McPEAK: Any comments?

Okay. Tom Maddock.

MR. MADDOCK: I'm not sure we need a blue ribbon commission.

I'd be interested in Director Kennedy's comments on that and the Corps of Engineers as to whether or not these agencies are capable of making the assessment that needs to be made.

But I had two questions here.

One is in terms of recurrence interval of this particular storm. I heard Roger Patterson say that they had the highest precip on record on the American River and so was this a hundred years or 150 years or what?

And then the second question is what was the ten day or seven day outflow in acre feet into San Francisco Bay and into the ocean there, if you know that?

DIRECTOR DAVID KENNEDY: I don't think

Page 75

anybody's done any analyses yet as to what the interval of this storm or these storms was.

I would speculate that on some of the streams it was in the neighborhood of a hundred year return interval.

On some it's probably less than that.

But when you've got a hundred years of record and you get the largest storm you've ever seen, you know, then it puts you into that ballpark. To the best of my knowledge, this is the first time we've been at design capacity on the Feather River below the junction with the Yuba River where we were essentially at design capacity.

On the American River this is the third time we've been at design capacity.

In '64 at this time it was 115. In '86 it was actually above design capacity at 130 for the better part of a day.

So there is some interesting things we are going to have to sort out on statistics.

We haven't calculated yet either the total outflow to the Bay but I'm sure it was somewhere in the 5,000,000 acre feet range, something like that, four or 5,000,000 acre feet.

MR. MADDOCK: So at some point if you had a 200 year flood then you would exceed design capacities?

Page 76

I mean, that's what I was trying to get at -- if you had a 200 or 300 year flood then you'd exceed the design capacities of say the Feather River system and you're gone, anyway.

DIRECTOR DAVID KENNEDY: That's probably true, right.

MR. MADDOCK: (Affirmative nod)

MS. McPEAK: Stuart Pyle.

MR. PYLE: Yeah.

I have one question, and one of them, you think, is more of a comment.

But my question is we haven't heard an awful lot about the performance of the Deltas and the flood carrying capacity in the Delta per se, and I just wonder does that mean that the Delta has been performing well as a result of the inpour of monies from the SB 34, et cetera, et cetera?

And then I have a comment, also, on the restoration.

DIRECTOR DAVID KENNEDY: I think that generally speaking the Delta is one of the brighter spots in this event in that there -- other than the South Delta where the San Joaquin River overwhelmed several tracts and islands down there.

In the north Delta there are two islands that

Page 77

went down. Both of them are almost designed to go down with really high water so it wasn't that big of surprise. That's McCormick Tract and (inaudible) Island both went down.

Other than that none of the major islands have flooded.

We've had some major flood fights, though, as recently as I think it was yesterday morning we had some trouble on Sherman that was troublesome.

I'm going to pick a number but probably ten major incidents within the Delta where we thought that we might lose islands during this month but have been able to flood fight each one of those successfully.

The portions of those islands where we have done SB 34 work over the last eight years, to the best of our knowledge, all have those of performed well and I think it's illustrated that that money has been well spent and where we have been able to get in and do work it can be successful and can be very helpful.

I think we put about -- the State has put about 75 million dollars into the SB34 program in the Delta over the last eight years.

There is another, oh, 30 or 40 million dollars in the pipeline that will be used for SB34 over the next several years.

Page 78

COLONEL PEIXOTTO: Well, the Delta levees did in fact perform well. It was nip and tuck in many cases, as Mr. Kennedy said.

We, the Corps, were involved in ten flood fights and they are either complete or some are still underway, and there are about 3.6 million dollars of flood fight efforts from the Corps on the Delta levees alone.

MR. PYLE: Sunne, if I may just comment on this ecosystem restoration.

MS. MCPEAK: Yes.

MR. PYLE: It seems to me like there is a significance opportunity for the collection of data on the performance of overflow areas in this type of event.

I hope that the agencies that have that responsibility are doing it and I think I also picked up on David's comment on the choking of the flood passage into the major channels from the San Joaquin into the Delta means that maybe there's another opportunity for some of Dick Daniels' desires for setback levees and some of those programs that get going and then I'd begin to worry about where we pour tens of thousands, maybe hundreds of thousands of dollars into gravel restoration, where is our gravel today, you know, all of those questions.

But it seems to me that there is going to be a big job for the environmental restoration of this whole

Page 79

process.

MS. MCPEAK: Let me give you the order that we have, Howard, then Robert, Annie, and Roberta. Howard.

MR. FRICK: Just a comment backing up, I suppose.

I was really impressed with this cooperation between Bureau and the Corps and DWR.

In illustration, you know, Kern County escaped this flood almost entirely. There was a lot of water in the Kern River and the Corps allowed the Isabella Dam to cut off releases encroached on flood control space in Isabella to -- probably approaching 200,000 acre feet now and that allows the San Joaquin and other streams north of Kern County to put water into the Friant Kern Canal, down into the Kern River and into the aqueduct, down to LA and that wasn't a big deal but it shows you the kind of cooperation. It helped some, significant, and that wouldn't have occurred a few years ago, I think.

CHAIRMAN MADIGAN: Robert.

MR. MEACHER: My question is one of a follow-up back when you were answering Mary's question on the levees and the fact to do a cost benefit analysis there may be some levees that won't be repaired. In the process is it is the Army Corps or FEMA that's going to make that

Page 80

determination and if so are we looking at a lot of relocation or buy outs of residences and farms if these levees aren't repaired, similar to what happened in Mississippi?

I believe there was 10,000 or so residences that were either relocated or bought out.

COLONEL PEIXOTTO: I'm unable to answer the second part of your question.

The first part, the economic analysis, that determination would be made by the Corps.

Under Federal law we operate within the benefits of investing that federal money has to exceed the cost of that federal money, or the value of that federal money. So the benefits have to exceed the costs.

MR. MEACHER: So when it's determined that the benefits don't --

COLONEL PEIXOTTO: Do not.

MR. MEACHER: -- do not or that they don't qualify, does that immediately kick in FEMA?

COLONEL PEIXOTTO: I can't answer that.

MR. MEACHER: You don't know that?

COLONEL PEIXOTTO: I don't know.

DIRECTOR DAVID KENNEDY: I might just comment on that for a moment, Colonel.

Most of the levees that had failures here are

E-014061

Page 81

so-called project levees. They are part of either the San Joaquin or the Sacramento River authorized flood control projects and virtually all of those breaks are being fixed right now.

The question of something not being fixed I think largely goes to so-called private levees.

There's some on the Cosumnes. There is a few other miscellaneous ones around and those present a whole different problem that we are trying to work through with local government and to some extent the Corps.

But I don't want to leave the impression that we are all sitting here deciding we are going to leave some of the project unrepaired because I think to the best of my knowledge both of these authorized projects are going to be fully restored.

MR. MEACHER: And I should have prefaced that.

I was directing it to the nonproject levees.

DIRECTOR DAVID KENNEDY: And there just aren't that many nonproject levees that it's possible to generalize.

The one that we are spending the most time on right now is the Cosumnes River right here in Sacramento County and there's some really tough questions that have to be dealt with their but there's a few other miscellaneous

Page 82

non-Federal levees around but it's not a great big issue.

MS. McPEAK: Ann --

COLONEL PEIXOTTO: If I could add a quick response to that.

On the -- I believe it was on the 10th of January the Corps put out notices from our Sacramento District and our San Francisco District asking all of those that have had damaged flood control structures to contact us to get into the system for repairs.

So there is those public notices out, 60 day public notices through the 10th of March, I believe it is.

Please let us know if you have damaged flood control structures so that we can include those in our restoration.

MS. McPEAK: Ann.

MS. NOTTOFF: Ann Notthoff with the Natural Resources Defense Council.

I want to get back to this issue of the opportunity to both improve flood management capabilities and to achieve some of the ecosystem restoration goals that is really the purpose of this body.

And it seems to me that there is both short and long-term opportunities to do that.

So that when you are looking at levee repair, for example, that you think about reconstruction of levees

Page 83

with allowing vegetative toes instead of riprap, thing like that.

What type of work group or consultation are -- is going on, I guess, through the Governor's work group here or how, you know, you're rebuilding some of these levees now. I mean, has any consideration been given to looking at how we can promote ecosystem restoration at the same time as we are dealing with short-term needs for flood management?

COLONEL PEIXOTTO: In these repairs we are making now, no.

We are trying to get some level of flood protection back, building in the footprint of the levees that were damaged to protect the citizens that are behind that. And that's the primary focus.

When we do the final repairs, then that's done in a more deliberative but not extensively deliberative manner in which ecosystem values are an important factor in the final decisions on how those are put back together, how the final flood protection is made.

MS. NOTTOFF: Michael, so is CalFed involved?

In the Governor's Council they are talking to the Corps about how, in fact, these repairs go forward and what consideration --

Page 84

MR. MANTELL: Just to amplify on what the Colonel said, the task now is just to provide immediate protection while we are still in the midst of the winter, but the CalFed -- Lester and his staff have been involved and are continuing to be involved in the discussions and will be involved in the hundred and twenty day report that Dave mentioned in terms of recommendations to the government.

COLONEL PEIXOTTO: And the Fish and Wildlife Service is working very, very closely with us.

MS. McPEAK: Thank you.

We are going to get Roberta, Bob, and then we're going to get Lester on what is going on and ask Lester to comment on some of the review from the CalFed process and how that relates to what might be done in the immediate response to the floods.

Roberta.

MS. BORGONOVO: I just wanted to follow back up on the point that Tom had first raised.

In this group we have presentations as we are looking at the ecosystem restoration from projects that were done in Florida where there was really a revamping of the flood control and they went back to flood management and they got ecosystem restoration and even in the Mississippi River Valley and even in the coastal wetlands.

Page 85

So I just wanted to make sure that in the long-term we would be incorporating those lessons that the Corps has learned in other parts.

So that was my first question.

My second question is when the FEMA money comes in, is it restricted? Is there any opportunity to do some of this ecosystem restoration if there are willing participants in it in the near term, in the short-term?

COLONEL PEIXOTTO: I don't want to speak a lot for FEMA. Their regulations are pretty precise, but my understanding is that their role is to help you recover from the disaster.

On your first point, wetlands restoration, the Corps of Engineers is doing the nation's largest in the Everglades that you mentioned. The Corps of Engineers is doing the nation's second largest right outside of town here on the Yolo Bypass. That is the nation's second largest ecosystem restoration.

I am a trained environmental engineer. The Corps of Engineers has as a mission, a mission, for us in the military a mission is important -- we have as a mission alongside flood management, alongside navigation, alongside construction of Army and Air Force bases, we have an environmental mission and we have authorities and legislation that allows us to pursue environmental projects

Page 86

and we have oodles of environmental -- environmentally educated people on our staff.

And so it's not an, oh, by the way for us. It is a central mission for us, environmental restoration and the environmental security of the nation.

MS. MCPEAK: Bob Raab.

MR. RAAB: This has to do with the science of forecasting.

How much difference would it have made if Mr. Mork and the other forecasters had been able to predict the pineapple express and the magnitude of the event, say, three or four days earlier than they were able to do?

DIRECTOR DAVID KENNEDY: Well, I'm going to have to speculate just a little bit about that because we don't have an analysis of that.

But the reservoirs for the most part were pulled down before all of this started. They were down to their flood control reservations.

We had, I think, Mr. Mork gave us about four days of advance warning that the big one is coming, which, frankly, I think is a remarkable amount of time upfront.

But as a practical matter you can't get the water out of the reservoirs at that level fast enough to make all that much difference.

One of the anomalies about Roger had operating

Page 87

Folsom is they can't get water out of there fast enough even as they see it rising. It's not up to the spillway yet and so they can't get it out and, of course, that's the reason that there has been a lot of consideration given to deepening the spillways at Folsom to get the water out sooner in the storm.

And if that turns out to be economical and physically practical to do, I think that would make a lot of sense.

But one of the other things that I think is certainly true I don't know if anybody is going to have -- ever have much confidence to storms that are more than four or five days out there.

You know, the storm at the beginning of this month, I think it's really almost extraordinary how well that was forecast.

If you look at what Mr. Mork and the Federal people gave us in late December and then compare with what actually happened, it's astonishing how close they got to what happened.

The one that was supposed to come last weekend, it actually got pretty close but it was not as big as they forecast right up until the last day.

And so you are always faced with the dilemma of dumping a lot of water and then the storm doesn't show up.

Page 88

It's worth remembering that in 1986, which was the previous very large storm, at the end of the season in '86 we did not fill Orville Reservoir because the water that had come through we had to release in both February and March. There wasn't enough snowpack up there to fill and Oroville did not fill for a period of almost ten years in spite of these huge flows of '86.

MS. MCPEAK: Let me -- yes, Roger.

MR. PATTERSON: If I could add just a little bit on that.

The forecasting, you know, there was -- following the initial forecast of the big storms coming in they weren't developing very quickly. In fact, there was a lot of conjecture about, ah, these guys are missing the mark because nothing's developing because it took about two days longer.

I don't recall which basin it was but there was like a six or seven day total forecast for one of the basins of about 29 and a half inches and after all was said and done it turned out that particular basin received 29.3 inches and I don't know whether that was just luck but I don't think so.

The other thing I would add, I would agree with what Dave said on Folsom.

We had maximum capacity going out of Folsom for

Page 89

about four days with the anticipation of what was coming and I think the fact that we could not get any more water out. We were at 34,000 CFS means we need to really look at some additional lower level outlook capability because we sat there and waited until it reached the spillway level. Before then we could start increasing the releases and for this storm that worked out. Everything was fine. But there were some -- I was glad to hear Tom say that it was easy on the American because we had sometimes it didn't seem all that easy.

MS. MCPEAK: To you, Dave, and Colonel Peixotto and Roger and Michael, I think we all want to commend you for the tremendous amount of cooperation between the State and Federal agencies.

That's, I think, extraordinary and of course, you've had to do a lot of work to coordinate those efforts.

What the questions I hear around the table are pointing to are trying to recognize the immediate challenge of getting through the rest of this season, protecting property and lives, lives and property in that order, and at the same time trying to reach that same extraordinary level of cooperation to achieve as much of the long-term goals of the CalFed process without compromising your immediate mission.

And so I think that's the direction that we

Page 90

were trying to go in and really build upon this experience.

It's unusual that we'd be in the middle of such a major undertaking around an ecosystem and then have such dramatic real data to relate to and part of what Mike and I have asked Lester to do and would also invite you to comment is given what we are looking at as a range of components in our alternatives, the restoration of habitat, the way we might approach levees with more sensitivity to habitat, with storage, with the facilities in the Delta.

Is there -- do we have the ability to look at the experience we've just gone through and evaluate the benefits that the program we have under consideration would have to the flood management?

And, Lester, you may want to kick it off but I'd also pose that to you, Dave, and to Colonel Peixotto. Have you had the opportunity to look at the program being evaluated here, considered here, at CalFed against the experience of the floods and to know what would have made a difference, if at all, to what you have just experienced?

DIRECTOR DAVID KENNEDY: Well, of course, we're pretty familiar with your missions here and I think it's -- there is a surprisingly good fit between what you're trying to do and the problem that we've had to address this last month.

So it's quite a convergence of two important

Page 91

issues. I think the timing in a way couldn't have been better.

Of course, we work very closely with Lester and his staff and I think this is a golden opportunity to put some things together and come out with a broad support for actions that both address specifically what you're working on and take care of some of these flood management issues at the same time.

MS. MCPEAK: Thank you, Dave.

Colonel.

COLONEL PEIXOTTO: I see a wonderful blend as we come into the future and do this assessment of flood control -- flood management -- in the basin, where the weaknesses are, what needs to be done to counter those weaknesses, but to do it in a way that is supportive of the CalFed objectives.

I see a very close relationship as we go into this study process between CalFed and the study of it.

MS. MCPEAK: Lester.

EXECUTIVE DIRECTOR SNOW: what I want to do is -- we are obviously still at a conceptual --

MS. MCPEAK: Thank you, Dave, and, Colonel, thank you very much. (Applause).

EXECUTIVE DIRECTOR SNOW: That's probably a good deal when you go to a meeting and talk about

Page 92

flooding and they applaud you guys and don't bring out the rope.

We are obviously still at a conceptual level on how we would integrate this, but I want to use some examples to kind of illustrate the concepts.

And Sunne has already summarized the opportunity in the sense that there is two ways to look at this.

One is that the flood event has provided us another data point and so it's kind of a new experience and let's look at the program to see what this data point tells us and then almost the flip side of that or a different way is taking a look at our program, at least the concepts that we have out there now, and seeing if there is a way that we can modify, accelerate, link in a different fashion what we have talked about to provide some flood management benefits.

And mixed in the discussion, I think all of the issues have come up.

And let me hit them real quickly and then I want to show you some examples.

The issue of offstream storage, we've talked a lot about offstream storage north of the Delta, south of the Delta and in-Delta and we've talked about it mostly from a fish flow and water supply standpoint but I think we

Page 93

need to look at it from a flood storage or flood reservation space standpoint.

The issue of flood flow areas, and in the flood business those end up being called flood easements.

But they provide a lot of different kinds of benefits including habitat and the concept of ag land preserved. Also the issue of setback levees, we've talked a lot about setback levees, what can be done with them in terms of providing greater levee system stability, in terms of that component. At the same time providing habitat opportunities.

And then a different issue of fortifying levees so that the levees can have habitat on them without people being concerned that habitat on levees means unstable levees and that's an issue that came up clearly in this flood event.

I want to start with a real kind of broad overview here and then I'm going to end up in more detail focusing on offstream storage and how it could work in the Sacramento system and then also the North Delta flooding problem.

But to kind of continue on with the discussion that's already come up here, the issue, we have, you know, identified all offstream reservoir sites that have ever been contemplated in the State of California and that's

Page 94

part of our process, to move forward and evaluate those and so we need to look at what role these offstream storage or in this specific case raising the existing reservoirs can play not only in the fisheries' water supply issues that we've identified but also in this case in the flood control issues.

The issue that Alex and others brought up of looking at the bypasses and overflow areas as a means of providing flood protection now where we have been looking at those issues primarily from a habitat standpoint. Same with the setback levees, we've talked about meander belts on the Sacramento system and we now have another data point, another issue with which to kind of refine our discussion of those.

Just to kind of remind you of the last meeting you may recall we started talking about how we are integrating these components and we kind of went through this exercise and divided the system up into three areas.

We talked about north of Delta and how there could be a, you know, offstream storage located somewhere up here to provide certain benefits and how there would be potentially meander belts and habitat integration with the stream course and we had that discussion at our November meeting.

When we identified the offstream storage issues

Page 95

in terms of north of Delta, we identified a lot of potential linkages and we had the issue of kind of re-operation of existing reservoirs for fishery and water supply benefits and so the issue that clearly has come up now is the re-operation for flood control benefits and so that's clearly something that we are looking at now that we had not focused on previously.

And I want to use this graphic just to illustrate, you know, a real specific point but I guess I need to explain this.

This probably doesn't immediately jump out at you what's on here. But on this side you have the water that's in storage and you notice the flood reservation targets at Shasta, and then you have outflow, what's going on, what's coming out of the reservoir and then you have inflow, and you can see actually Shasta was being drained as we went into the flood event and then outflow significantly increased -- excuse me -- inflow significantly increased and outflow came up with it and at the same time outflow is increasing. The flood reservation capacity is being filled.

The concept of offstream storage integrating into this is that you take a block of this and you actually can move it out and do it in conjunction with some offstream site or you move it out prior to the flood

Page 96

season, some specific quantity of water, 400,000 acre feet, a half a million, whatever the number is, and then that allows you to provide additional flood reservation capacity without losing water supply or fish flow water or temperature control water, whatever the issue is, and so that's something that we are trying to take a look at now.

And kind of one more specific example utilizing the north Delta.

I have the Cosumnes and Mokelumne system coming together. There was a lot of problems in this area and this ends up also being a historic bottleneck in the system.

There's a lot of flooding problems in the system, has been for a long time. It has been the topic of a lot of flood management and flood control issues. This also in the general areas about needing to create some habitat, how do we create channels and get more habitat in the system.

I guess there is two different issues. I'll how you a couple different cross-sections but the concept that we have on the Cosumnes is this is where you have the private levees that were referred to earlier.

Maybe here are opportunities rather than trying to take those levees and fortify them to this 100 year level figure out a way that we can have an overflow area.

Page 97

Let me talk first about the Delta.

What happens is this water comes in from this system and then has these channels that the water must get through before it can get to the San Joaquin side and flow out. These end up being very constricted channels in here.

And Alex probably can attest to that.

So what you have in that system right now is fairly confined channels with, in some locations some habitat benefit on the existing channels but generally in a constricted area.

What we have been talking about and what this shows us may actually be able to achieve multiple benefits is significantly changing the channel capacity in that area so that the flood flows can move through while we are actually, because of that specific location, getting tidal wetlands. That's an area in the Delta where you have tidal influence where the land is at the right level that you can create tidal wetlands as well as the potential of unmanaged seasonal wetlands and at the same time being able to provide flood capacity.

Back up on the Cosumnes River itself, the same kind of concept. Obviously you would do this on a much larger scale, much wider areas, and you would look at providing agriculture as well as wildlife habitats or agricultural easements. We now have an opportunity to look

Page 98

at this more aggressively where we can been providing not only habitat benefits that we've been talking about in a very linked system, potentially providing habitat all the way down on the east -- is that visible? It's not to me -- barely -- providing habitat potentially all the way down this corridor, very extensive habitat, but then also providing a floodway to deal with this problem as opposed to dealing with it in some other structural way that might be proposed.

So that kind of represents two examples of a lot of different issues that are out there that we can integrate into the program.

So I'd be glad to try to respond to any questions about how we are approaching this or other issues that may come up. I would mention just one other one that may not be obvious and we are not sure how much leverage that we have on it.

Actually, there's two different issues I guess I should mention.

One is we need to take a quick look at exotic species.

We have discussed on a number of occasions the problem with introduced species in the system, water hyacinths, as an example that we've brought up and Alex has brought up.

Page 99

There is some speculation that after a flood event you have really reduced the water hyacinths in the system and, therefore, if you jump on that issue before they get reestablished you can get better control of hyacinths, and that's something we need to run to the ground.

The other issue that's a real site specific issue is as diversion structures or other physical structures in the system have been damaged perhaps they can be replaced in a different way to meet some of the other program objectives.

And there are examples of dams and diversion structures on the tributaries that have been affected by this and as they are replaced perhaps we have an opportunity to effect the way that they are put back in place to meet some of our ecosystem objectives.

CHAIRMAN MADIGAN: Okay.

Would anybody here like to have a BDAC song?

Sunne.

MS. MCPEAK: Lester, I actually thought I'd never live to see this day when there is too much outflow through the Bay-Delta system but there is now the reports coming in of wildlife -- not wildlife -- but marine life. It's actually life that needs an estuarian system being really negatively impacted and killed by too much

Page 100

outflow, too much fresh water environment.

Are you looking at that?

We've long had the discussion around the Bay-Delta and trying to get more understanding of the Delta -- excuse me -- the Bay component to the Estuarian system.

Do we have any feedback?

Are you getting any information about how much is too much to the Estuarian environment there and what that would suggest in terms of planning for the BDAC proposals here?

EXECUTIVE DIRECTOR SNOW: I think in general and Dick is welcome to comment on this that with the exception of some real specific exotic species where the outflow may push them down to a point where we have an opportunity to control them, with that aside, in general these kinds of high flows are seen in the long-term to be beneficial to the ecosystem and it's not a problem that you want to control these so it doesn't have an ecosystem impact. It's kind of part of the big picture.

Is that fair to say, Dick?

Or maybe not.

MR. DANIEL: Despite the fact that this was an extra ordinary event the natural system has got the resiliency to deal with it.

Page 101

What I would like to caution is to prevent these events from happening in the future if we can but what's going to happen next year?

Are we going to have conditions sufficient to allow those marine species to recolonize the Bay and recover from this natural disasters and that's basically what we are trying to look at, to rebuild a full range of resiliency back into the system.

CHAIRMAN MADIGAN: Alex.

MR. HILDEBRAND: I'm not sure whether I understood Steve Yeager's presentation correctly, but it sounded to me as though the plan is to allow the peak flow to occur and break all the levees and then start storing water.

That doesn't sound too good to me.

Maybe there was some restraint on that that I didn't detect.

EXECUTIVE DIRECTOR SNOW: I think what Steve was talking about was a more normal hydrograph in the system, a more normal flow event.

Certainly, we are not designing the system to this event and so I think, you know, in this kind of thing you want to move water out of the system as quickly as you can to help the flood issue.

CHAIRMAN MADIGAN: Okay.

Page 102

Marcia.

MS. BROCKMAN: Lester, I know that task force that the Government has set up is supposed to make long-term recommendations.

Are we going to take the lead in responding to those or who exactly is going to be doing that and how can we play a part in that?

EXECUTIVE DIRECTOR SNOW: I think the issue of the long-term goes well beyond CalFed. There are a lot of other issues, but I do think that CalFed needs to provide information into that process related to some of these issues where, you know, we have habitat strategies.

We also have -- I mean, this is something we haven't discussed too much, but a lot of this habitat restoration that we are talking about doing will have impact on prime agricultural lands.

You have an obligation under CEQA to mitigation your impact on prime agricultural lands and so when we look at some of these situations we see an opportunity to set up agricultural preserves in these overflow areas.

It's worked well in the Yolo Bypass. It can work well in some of these other areas. So we have an opportunity to submit into that process some of these long-term integration issues along with all of the other issues that will be brought into that.

Page 103

CHAIRMAN MADIGAN: Tom.

MR. GRAFF: Lester, back to your offstream storage example -- maybe Eric would want to comment on this, too -- if you could view that as either providing flood control space, in which space there historically has been a substantial amount of public nonuser (inaudible) that goes into providing flood protection or you can view it as providing a water supply that later gets sold to somebody and they ought to pay for it.

How are we going to make a determination which of those it is?

EXECUTIVE DIRECTOR SNOW: Actually, in that specific case you can analyze that distinction. I mean, you can come up with how much of an offstream reservoir is providing added flood capacity versus how much additional yield you are getting.

I mean, if we, for example, come up with something and all of a sudden the reservoir is, in fact, completely reoperated and that becomes the new standard we can calculate the flood benefits associated with that. And if that represents half of what we are doing in the offstream reservoir then it's easy to translate that perhaps flood control interests should pay half the cost of that reservoir.

And then the reservoir can also provide water

Page 104

supply benefits.

So I think that's one of the areas in the program that we can do a reasonably good job of analyzing costs and benefits.

CHAIRMAN MADIGAN: Eric.

MR. HASSELTINE: Well, I think Lester has replied to the specific question but it brings up the whole issue of how do you put value on benefits and how do you identify who the beneficiaries are?

And I don't know if this is the time, Mr. Chairman, but I've been looking for an opportunity to sort of jump in with some of the goings on of the finance working group which relate I think to some of the discussion we are having here and some of the charts that Steve put up with the programmatic approach, which tends to a more general rather than specific identification of the components of the overall solution.

And to the extent that we believe that any component that actually is part of the ultimate solution has to meet two financial tests, one, as mentioned earlier by Alex, has to be cost effective, meaning what you gain from doing it is equal to or greater than the cost.

But, secondly, that regardless of that it has to meet a financial feasibility test, that you have some way of generating the money to, in fact, implement that

Page 105

component much less the entire solution.

And it would seem to us that before we come out with a preferred alternative that type of analysis has to be cranked into this.

The trouble that we've been having thus far is that cost effectiveness is a comparison between costs and benefits and the total number of benefits from the various beneficiaries. The data just doesn't exist on that.

And we've been forced into, I think, a position now that really became much clearer to us yesterday at our finance work group meeting that we are really going to have to be proceeding with the development of a financial plan based much more a the qualitative analysis rather than a quantitative analysis, meaning that we are not going really be able to compare absolute values of benefits to absolute cost figures probably for some time.

And that initially caused, I think, a fair amount of consternation within the group because we had developed what we thought was a process of working through costs and benefits and then assignments of benefits to beneficiaries. Therefore, setting up the basis for cost allocation amongst the various parties and beneficiaries and then looking to see whether or not those beneficiaries could really bear those levels of cost in order to come up with some sort of an overall financing plan.

Page 106

And I guess the troubling part of this is that we are being asked to come up with a financial strategy initially sometime in late spring or summer and then coming up with a draft financial strategy by fall and it's hard to really foresee a financial strategy that really makes sense or is really applicable to a preferred solution when we don't seem to have the specificity of what is in the preferred solution.

Therefore, we don't have much specificity in the value of the benefits.

And so that's sort of what we are wrestling at right now and I think we are sort of headed for some sort of a hybrid initial analysis that probably is going to be fairly quantitative on costs and is going to be very qualitative on benefits.

And so I think Tom's, you know, reference to the financial aspect of this is right on target and we just don't really know yet.

I think in this particular case it lends itself to a much more quantitative analysis, fortunately, but there are a lot of other parts of the program that don't.

CHAIRMAN MADIGAN: Sunne.

MS. MCPEAK: Lester, on the example that you put up, in terms of the ability to quantify what is a flood management versus water supply, would it be possible

Page 107

to also do that analysis against variables in time?

In other words, to recognize that in given periods of time a facility can have more utility for flood management and those tend to be peak times versus on an ongoing basis perhaps more utility for water supply?

And what would be the implication of doing that?

EXECUTIVE DIRECTOR SNOW: Roger, why don't you answer that question?

MR. PATTERSON: Well, I think that's a good point because, in fact, that's fairly normal for how you'd allocate space in some of the reservoirs, in Shasta that Lester has up there. We will have a maximum flood reservation that we will be holding at this time of year and as you get through the flood season that will become smaller and will convert to storage space so I think that's legitimate to look at.

On the point that Tom raised earlier I think that's a good point and Eric's right, we'll have to see how it flushes out, but we have done some of that in our system, particularly at Folsom. There's kind of two ways to do it.

One, you can increase the amount of flood protection and not re-allocate the costs but have a make up of impacts that if, in fact, the costs of water, et cetera,

Page 108

some way to make that up, it could be the offstream storage, or you could actually re-allocate the costs on the existing facility and allocate new costs on the offstream storage and we kind of have a couple ways to look at it and I guess I've seen it done both ways.

MS. MCPEAK: Most of the could cost allocation has been done on a static basis not a dynamic basis, even though you operate on a dynamic basis for flood reservation versus water supply.

You can only really operate effectively or efficiently on a dynamic basis.

But my contention is -- just let me ask if I'm right -- the cost allocation has been done on a static basis generally with a maximum amount of allocation to the flood management function.

So the largest amount that you would need for flood reservation is the cost allocation to flood management or public purpose.

Is that not true?

MR. PATTERSON: I think it's a little more complicated than that.

I think it's actually a separable type cost analysis where you look at the benefits but you could do that. You could do it in that way. I'm actually not sure how it's done on the various facilities now.

E-014068

Page 109

MS. MCPEAK: Okay.
CHAIRMAN MADIGAN: Okay. This has been a good conversation, interesting stuff and all timely.
We are going to go ahead and break for lunch.
And when we return, we will pick up with Rick Breitenbach's part of the presentation on component integration and then move on to the update on the development of the water quality program.
I understand lunch for BDAC is in room 105, I think, downstairs and we will be back in 45 minutes and it's about 12:40 so we'll be back at about 1:25 to start again. We are in recess.

(Whereupon the noon recess was taken at. 12:42 p.m., after which the following proceedings were had at 1:36 p.m.:).

CHAIRMAN MADIGAN: All right, ladies and gentlemen, the hour of 1:25 having come and gone, the Bay-Delta Advisory Council is back in session.
And the first item on the Agenda is a continuation of the subject on this morning's conversation which is component integration and programmatic level of detail.
We have just completed -- anybody who really

Page 110

needs to have the conversation that's ongoing right now, if you'd step into the hall, it would help the people that are in here to focus on the items at hand.
We'll continue with Rick Breitenbach's presentation as a part of that item.
Rick.
Yes, Mary.
MS. SELKIRK: Before we start the afternoon presentation I just wanted to --
CHAIRMAN MADIGAN: Let me get the microphone on here. Get Mary, okay.
Thank you.
MS. SELKIRK: I wanted to follow up on an issue that was discussed early on this morning before we proceed to the afternoon, having to do with the timing of the -- that we are facing at CalFed, particularly with regard to the restoration plan.
We didn't really --- I know there were views expressed on both sides by members of BDAC and also by members.
What I would like to suggest because I think it is something that is worth reviewing and discussing further is to suggest that a couple of members of BDAC who are interested in this issue perhaps with input from the State and Feds could deliberate some more, not at this meeting

Page 111

but with Lester at some point over the next couple of weeks, to consider the timing certainly with regard to the restoration plan schedule.
I'm just concerned that -- you know, I understand that there is some disagreement on the Council about this, but I think from the perspective of being the Chair of the restoration work that I think it's an issue that needs to be revisited in a way that we can come to some --
CHAIRMAN MADIGAN: Right.
MS. SELKIRK: -- satisfaction on the issue.
CHAIRMAN MADIGAN: I'm happy -- oh well, it's hard to know how much satisfaction, if there are opposing viewpoints on it. I guess a part of the satisfaction has to be some level of confidence that the program is going to produce what you expect it to produce so that what you review is, in fact, meaningful and your review, therefore, is useful.
I can always -- I'm pleased to offer up Lester's time for additional conversation in this regard, and you should be comfortable with the schedule.
I guess I would hope that we wouldn't prejudge the failure of the product that the -- that's going to be produced, and it seems to me that that's a part, at least,

Page 112

of the assumption that things are going to take a lot longer than they otherwise would.
If, in fact, the work product isn't adequate, then that's, certainly, a fair conversation, but I wouldn't want to automatically assume that it's going to be delayed now on the possibility that the --
MS. SELKIRK: No --
CHAIRMAN MADIGAN: -- the work isn't good.
MS. SELKIRK: No, I don't mean to imply that we are prejudging failure by any stretch, but I think there is some agreement that there's a level of analysis and peer review that should take place early on rather than during the impact analysis -- to when we are well into the impact analysis so I think that there is an issue here that could use some closer scrutiny before we just let it go.
CHAIRMAN MADIGAN: All right. And that's fine.
If I can make it up here I'll participate in that conversation as well.
Okay. All right, sure, we will schedule that. All right.
Rick, where are you?
RICK BREITENBACH: What I'd like to do is just continue on with the level of detailed discussion that Steve began this morning, and what I'm going to do is focus

E-014069

Page 113

on the environmental document.

As you all know we are preparing a program document and I'm sure that all of you have a different idea of what a program document is and what it contains and it's no different than those of us on the program team. We all have different ideas as well.

So what I hoped to do today and what Steve started earlier is to begin to get you in a mode where you understand the direction we are heading with this programmatic document and also to get you comfortable with what we are doing or hopefully begin to get you comfortable with what we are doing.

I'm going to talk through a couple of overheads to differentiate between a programmatic document and a site specific document.

Those of you that were with us when we went through the scoping effort, I did a similar presentation but it was on a more generic level.

Today I'm going to try to do it with regard to one of the actual components that we are working on.

Following my presentation, and I'll take a cue from the old Bob Newhart show, my brother Rick and my other brother Rick are going to come up and talk about their components and at the same time they will also offer some information about level of detail with respect to their

Page 114

components.

Now, this is hypothetical. Steve showed you one that was hypothetical north of Delta Storage. I don't know if two hypotheticals make a real or not but let's pretend this is still hypothetical.

The other thing I want you to remember is that when we do an alternative, we are not just going to look at north of Delta Storage.

There will be all of the other components tied to this alternative as well. So there will be ecosystem restoration, there will be water quality, water use efficiency, system integrity and some sort of conveyance component as well.

So this first slide illustrates what is going to happen in Phase II, the Phase II environmental document.

The next slide will be talking about the Phase III environmental document.

The left hand side of the slide depicts what will be there when we start the programmatic evaluation and what we are thinking when we start the programmatic evaluation.

We'll have a representative set of reasonable options.

Those options will have some sort of surface storage ranging anywhere from zero to three million acre

Page 115

feet.

So one of the options may be 500,000 to a million and a half acre feet. Another option might be two million to three million acre feet and so forth. We'll have a representative range. We'll also talk about groundwater, conjunctive use, and what we are saying is that the options may range anywhere from zero to a half a million acre feet of groundwater and conjunctive use.

And then we'll have operational concepts.

And Steve had those up earlier today on the slide talking about how we might operate impact analysis. In a programmatic document we are going to do a qualitative and quantitative analysis. Focus on the qualitative side rather than the quantitative side and we are going to disclose the general adverse and beneficial impacts so it's general, it's qualitative. We are not getting overly specific in the analysis.

What we think will come out at the other end is a narrowed range of options and I think all of you are familiar with the three that are up there, the Tomes-Newville complex, Cottonwood complex and Colusa complex. These are examples of what might show up or what we might use to go on into the next phase. When we finished Phase II this is as far as we are going to be able to go in terms of this is what we think is in the preferred

Page 116

alternative.

Storage options of about a half a million to a million and a half acre feet.

Conjunctive and groundwater storage of about a tenth to 300,000 acre feet and we'll have refined operational concepts.

Now, let me just switch over to what would happen when we are actually at the specific level, and we are preparing a site specific environmental document in Phase III.

If we were looking at the north of Delta Storage we would have specific sites identified at Phase III.

We won't just have a representative range of options. We'll have specific sites identified at that time.

We'll do a very specific quantitative and qualitative analysis. We'll disclose very specific adverse and beneficial effects as opposed to the general and the programmatic document and what we'll wind up with is the site, the preferred site north of Delta.

This is at Phase III, this is not at Phase II where we are right now. We're doing the more general programmatic document.

I would end there and entertain questions.

Page 117

CHAIRMAN MADIGAN: Questions.
Alex.
MR. HILDEBRAND: This morning I made the comment that it seems to me the objective isn't the volume of storage.
It's the yield of water and the benefits that you might derive from that, and you haven't commented on the difference between that and what you were proposing here.
RICK BREITENBACH: My sense is that they go hand in hand.
You have an alternative that says that there is storage, if I'm thinking of this in the right way, and do you an evaluation that tells you what sort of yield, what sort of benefits, what sort of costs are involved in that, not only economic but environmental and so forth.
CHAIRMAN MADIGAN: Lester.
RICK BREITENBACH: And that's what comes out of the environmental document.
EXECUTIVE DIRECTOR SNOW: Yeah.
MR. HILDEBRAND: It bothers me to have it sound as though the objective is a pot of storage regardless of how often you can fill it and that sort of thing. Rather than having the objective stated as having an increase in the water supply, which can be used in the

Page 118

optimum manner.
It seems to me we are not emphasizing the right thing.
CHAIRMAN MADIGAN: Lester.
EXECUTIVE DIRECTOR SNOW: Actually, Alex, I couldn't agree with you more, that one of the things that is not an objective to make some determination is how big of a pot can you find somewhere in the State.
I mean really what drives the analysis is what can you accomplish with the storage, fish flows, water supply, water quality. I mean, there's all kinds of issues and that's really what drives the analysis.
Simply looking at potential reservoir sites and saying the site acts as the largest one available, that would have almost no bearing in the process that we are moving forward on.
CHAIRMAN MADIGAN: Roberta.
MS. BORGONOVO: I had a question about the relationship between the programmatic EIS and the site specific EIS.
When you do the site specific EIS, it's done after the 1998, when the final programmatic EIS is done?
And then that was my first question.
My second question is then is the site specific constrained by what's in the programmatic so that if there

Page 119

is a range in the programmatic when you go to site specific, that you're within that range and then you are simply going into more detail?
RICK BREITENBACH: The first question, I believe that we can start environmental documentation, whether it be an EIR, EA Fonzie or something like that before we reach the final -- 1998 final Record of Decision.
I don't think your precluded from doing that.
I think you should probably wait until after the Record of Decision is in place before you actually start putting something that you're doing an environmental document into place and the subsequent environmental document into place.
The second question one more time?
MS. BORGONOVO: What then goes into the site specific environmental documentation within the parameters that have been laid out in the programmatic EIR/EIS?
RICK BREITENBACH: Yes.
CHAIRMAN MADIGAN: That's a yes.
RICK BREITENBACH: The answer is yes.
And we hope that we have bracketed the range wide enough to fit things that may come further.
CHAIRMAN MADIGAN: All right.
Anybody else? Do you want to call your

Page 120

brother, Rick?
RICK BREITENBACH: Okay.
MR. BELZA: Mike, the perfect time to interject the song or the cheer, whichever is applicable for BDAC, during these lulls?
CHAIRMAN MADIGAN: Yes, that would be a good idea. Sure, we can kind of fill the voids.
RICK WOODWARD: Chairman Madigan, members of the Council, I appreciate the opportunity to speak to you today concerning the current status of the water quality program, its accomplishments to date and our plans for the future.
Now, we are trying to create a technological bridge to the 21st century with this equipment today so just in case we have these standard overheads.
I should mention that I have with me today Wendy Halverson Martin, who is over here and she is one of our leading staff experts on the environmental impact documentation and that sort of thing and so I will be calling on her when I get myself in trouble.
These prepared remarks will last about 25 minutes, which I think should leave sufficient time for discussion afterwards.
The water quality objective is to provide good water quality for all beneficial uses, including

E-014071

Page 121

environmental, ecosystem, agricultural, municipal, industrial, and recreational uses.

I'm sure you all remember that water quality is one of the program components, that when integrated with the other components of the program will form alternatives for solving the problems of the Bay-Delta Estuary.

Pretty fancy, huh?

I'd like to spend a few minutes at this point to revisit the history of the Water Quality Component.

To get started, we created three technical teams composed of stakeholders to represent ecosystem water quality, agricultural water quality and urban water quality interests.

These teams helped us to identify the water quality characteristics of interest and to identify potential corrective measures.

Having gotten that far we believed it was then necessary to include in our deliberations not only potential beneficiaries of improved Estuary water quality but also those, such as permitted discharges, watershed protection entities and agricultural chemical suppliers who might be affected by activities of the water quality program.

Having made an effort to reach these interests we formed a Unified water quality technical group that is

Page 122

the body charged with providing the CalFed team with ongoing technical assistance and advice.

We intend that this group remain in existence indefinitely.

Now, here is where I can blow it (indicating).

See, if you don't hit this little button exactly right, it crashes the program. Ah.

The geographic problem area of the water quality program is the Bay-Delta Estuary. In other words, it is the -- within this area that the water quality problems exist that we intend to try to correct.

In solving the problems of the Estuary we plan to undertake activities as necessary throughout the watershed's tributary to the Delta and within the service areas the water supplies taken from the Delta.

In your meeting packets we have included an issue paper that suggests CalFed's role in water quality should focus on comprehensive watershed wide solutions that integrate and coordinate water quality improvement efforts of State, local and Federal entities.

We believe a well thought out definition of the CalFed role in watershed protection will greatly aid the water quality program in accomplishing its mission while alleviating concerns that somehow CalFed would usurp existing roles of other entities or add unnecessary

Page 123

bureaucratic layers onto existing processes.

We've come to you today to solicit your thoughts and help us to determine an appropriate role for CalFed in watershed protection for water quality and we'll be returning to this subject later on.

Turning now from the organization of the water quality program and to the products of the program, I'd like to illustrate how we've gone forward from the general to the specific.

The expert water quality stakeholders working with us have helped us identify water quality parameters of concern to CalFed, effective beneficial uses, problem areas, target ranges, problem sources, and programmatic actions that would be expected to correct identified water quality problems.

All of the work down through the actions falls within Phase II of the program related to specific, to the production of the programmatic EIR/EIS, while specific projects to implement water quality action generally fall within Phase III of the CalFed Program as depicted here.

There can be exceptions to this schema and we'll revisit that a little bit later.

The stakeholders identified a number of water quality constituents that are thought to potentially present water quality concerns in the Bay-Delta Estuary.

Page 124

These include chemical elements, such as copper, mercury and zinc that can be toxic to fish and other aquatic organisms, pesticide residues from agricultural or municipal sources that can cause toxicity to aquatic organisms, minerals including salts, boron and bromide that can adversely affect crops and the ability to recycle water and that along with organic carbon can form unwanted chemical byproducts in drinking water.

Nutrients from very sources can stimulate unwanted aquatic growths and cause taste and odor in drinking water supplies. Elevated water temperatures from thermal discharges can adversely affect the ecosystem and turbidity caused by soil erosion can affect a number of uses of Delta waters.

Let us use copper as an example of how we envision moving from the parameters of concern to specific corrective measures.

Copper is of concern because it can be toxic to fish and other aquatic life.

The Upper Sacramento watershed is one source area. The existence of a problem with copper pollution in this area depicted has been pretty well established.

The water quality control plan or basin plan as it is better known produced by the State and regional water Quality Control boards sets a copper objective of 5.6 parts

E-014072

Page 125

per billion for the Sacramento River upstream of Hamilton City and is intended to protect fish and other aquatic life.

This objective, we believe, is an important target for copper in this section of the river. We would plan, therefore, to use this number to evaluate a water quality problem with copper in this part of the river and ultimately to measure the effectiveness of control or prevention measures that might be taken there.

Possible sources of copper in the Upper Sacramento River system may include acid mine drainage, waste water treatment plant discharges and urban stormwater runoff.

Of these acid drainage from abandoned and inactive mines has been determined to be important.

Now, getting back to the source of the problem, let's take a closer look, and we will see that the locations of some of the abandoned or inactive mines that are known to contribute copper to the Upper Sacramento River. Programmatic actions that might be taken to reduce concentrations in the river would be directed toward reducing discharges from these mines.

The programmatic EIR/EIS is likely to include one or more actions directed toward reduction of mine drainage.

Page 126

Here is a picture for you showing you what mine drainage might look like.

Now, translating actions into specific projects to implement actions is generally the province of Phase III of the CalFed program, where site specific environmental documentation will be prepared and projects implemented.

With respect to the copper example a specific project might be to reroute a stream around a certain mine tailings pile so that the tailings cannot release copper into the stream to be carried into the Sacramento River.

I do need to probably make the usual disclaimer that this is just an example and is not intended to reflect the opinion that this type of problem is more important than any other.

So I hope you can see how using the copper example we moved from copper as a water quality parameter of concern to its identification as a potential problem in a certain area, to actions that would improve the condition and in Phase III to specific projects that would implement the action.

To date we've identified about 30 programmatic actions that might be taken to improve the water quality in the Bay-Delta problem area.

I think the concept of the progression from the general to the specific in the water quality program is

Page 127

pretty important and so I'd like to provide another example.

Pathogenic organisms, such as crypto sporidium bacteria and viruses can present health risks in drinking water to recreationists or potentially to other organisms dependent on the Delta. Pathogens are among water quality parameters of concern in the Delta because the Estuary is an important recreational area, is the source of drinking water to about two-thirds of State's population and is the home to many important species of fish and wildlife.

The problem area for pathogens in which we are interested is, therefore, the Delta Estuary.

Currently there is no water quality criterion for pathogens and organisms in surface waters, though guidelines are being developed.

This illustrates one of the complications faced by the water quality program.

We need to be able to evaluate the effectiveness of various combinations of actions. In cases such as this when there is not an established numerical criteria we'll have to decide how best to evaluate alternatives for protecting the Estuary.

Our thinking is that in cases such as this we'll need to rely upon the best judgment of experts. Fortunately, through the water quality technical group we

Page 128

have access to the experts.

One potential source of pathogens for this example in the Estuary is waste discharges from boats and boating activities.

Therefore, a programmatic action might be taken to improve the situation and to control or eliminate discharges.

And this is stated at what we believe to be the programmatic level of detail.

And one might implement such an action by installing floating sanitary facilities for day use boaters and by increasing enforcement regulations for sanitary facilities on the boats resident in the Delta.

Again, trying to illustrate how the water quality program is intended to move from the general concerns to specific projects to alleviate those concerns. As with the copper example the work down to the programmatic action statement generally is accomplished in Phase II of the CalFed process while implementation of the action to specific projects will be done during Phase III requiring project specific environmental documentation.

You can stay with me. I'll show you just one more example and then I promise to stop.

Selenium is the water quality parameter of concern because in elevated concentrations it can be toxic

Page 129

to birds, fish, and other aquatic and terrestrial life.
The problem we are going to talk about today is in the lower region of the San Joaquin River and in the Delta Estuary.
The water quality control plan establishes a limit of five parts per billion for selenium in the river.
The primary source has been determined to be subsurface agricultural drainage in the grasslands area of the San Joaquin Valley.
This shows you the grasslands area.
The San Joaquin Valley drainage improvement program is a large inter-agency program that has been engaged for some years in exploring solutions to Valley drainage problems.
Their report recommendations land use conversion of some 45,000 to 90,000 acres in the grasslands area where selenium concentration and subsurface drainage are high.
This illustrates another important point.
We see the CalFed role in water quality as not reinventing the good work of others.
Instead we see ourselves as fulfilling a coordination and facilitation role unifying the efforts of others into a comprehensive whole throughout the CalFed solution.

Page 130

Therefore, the recommendation of the drainage program report, using that recommendation, I should say, land use conversion, is identified as a programmatic action that if integrated with a number of other drainage management activities would be expected to improve selenium conditions in the Estuary.
One might implement a programmatic action through negotiating a contract with a willing landowner to change land use practices in such a way as to reduce selenium migration from the property.
And once and for the last time we are illustrating the activities that constitute Phase II of the program as compared to those which constitute Phase III of the program.
Now, this one, if I do hit the button in the middle, it crashes the program. Ah, (whistles) I thought you had me there for a minute.
Concerning linkages, we've been focusing on the word -- I'm just going to move you forward into what we are going to be doing in the future, whereas we've been talking about what we essentially have done.
Next we are going to be developing linkages formulating and analyzing alternatives and working on assurances.
And I have some examples that will give you an

Page 131

idea of how that's going to work.
The water quality program can't stand by itself and must be integrated with the other components of the CalFed Program in order to arrive at alternatives for the evaluation in the environment documentation.
I'd like to provide you with an example to illustrate what linkage means to us and how we might proceed. In this example we'll create linkage among system integrity, ecosystem restoration, and water quality program components.
A wetland might be designed and constructed on a Delta Island which would have one of its primary purposes, the enhancement of wildlife habitat.
In addition, however, it would have design features to help reduce island subsidence, which is one of the largest threats to Delta levee stability.
We think this might be possible by designing and operating a facility in such a way as to reduce oxidation of the peat soils and even to cause new deposition to raise the land surface.
Recent experiments indicate soil oxidation on peat islands may be reversible by maintaining soils in an inundated condition.
This solution of organic soils into Delta water supplies is known to cause problems for drinking water

Page 132

producers because of the formation of unwanted chemical by-products of the drinking water disinfection process.
The wetland would be designed and operated so as to minimize dissolution of peat soil or to reduce discharges for -- from Delta islands into the Delta channels.
Therefore, as I think of it, linkage is a process whereby we will optimize actions to accomplish multiple objectives.
Alternatives to be analyzed in Phase II of the program will be constructed through these linkages.
Getting back to a diagram that you've all seen before, we have been discussing water quality activities that constitute Step 1 in the process, see my little arrow, and we are talking about the linkage activities that would occur in Step 2 of the process.
So this is how water quality work today fits into the overall CalFed plan.
We'll be moving forward soon to undertake impact analysis that will provide the information for creation of the draft programmatic EIR/EIS.
Let me give you an idea how the water quality impact analysis would be done.
Let's take copper as an example. Of course, we'd have to perform the same type of analysis for all of

E-014074

Page 133

the water quality parameters of concern.

We'll be evaluating how copper concentrations would change with implementation of the three programmatic alternatives with different permutations of storage and conveyance.

Typically we would run a mathematical model to determine what flow changes would result from implementing an alternative.

Then based on what we know about copper loads coming into the system we would compute the resulting changes in copper concentrations.

This will be an iterative process because once we recalculated a result, meaning an alternative, we'll need how to consider how to optimize the alternative's ability to reduce copper concentrations and this would have to take into account the need to optimize the alternative with respect to ecosystems, supply and system integrity features.

In attempting these evaluations we are destined to run into problems with limitations of available information.

We will consequently need to rely to some extent on expert judgment and providing us with expert judgments is the -- one of the primary functions of the water quality technical group.

Page 134

We plan to realize CalFed's objectives through an initial five-year plan of staged project implementation.

Earlier we indicated that implementation of specific projects is generally the province of Phase III of the CalFed process, but there may be exceptions.

Some water quality actions may not necessarily be dependent upon the programmatic EIR/EIS which is being developed in Phase II of the process.

In the area of water quality implementation have some projects might be highly desirable irrespective of which alternatives are selected in the programmatic document and it would not affect descriptions of alternatives or choices among alternatives.

It might, therefore, be possible to implement worthy projects through separate environmental documentation that might enable earlier project implementation than would otherwise been possible.

The first projects to be implemented might, therefore, be those that are not dependent upon the programmatic EIR/EIS.

The second stage of projects to be implemented might be those that are dependent upon the programmatic and would significantly benefit Delta water quality and have other attractive features, such as having been well studied that employ local partnerships where a local or regional

Page 135

project management infrastructure exists and perhaps where there is some sort of cooperative fund.

Finally, projects that require more complete study in development would be staged allowing the necessary time to develop information, design and to develop project management infrastructures in order to get the project implemented.

We have invited the existing watershed management groups in the area and also members of the water quality technical group to provide us with suggestions for projects that might implement the 30 or so water quality actions that we have identified in our process. We are currently compiling a list of such projects and will soon begin to evaluate whether some could be done in the first stage of project implementation.

Turning now to assurances.

The water quality stakeholders have identified a number of areas where assurances are desired. There is a perceived need for assurance that CalFed water quality activities will be appropriately coordinated with other ongoing water quality efforts.

There is a need for assurance that an equitable portion of CalFed funding will be made available to the old water quality problems.

And for assurance that before an irretrievable

Page 136

commitments of resources occur, actions in projects to implement those actions are adequately supported by scientific study.

There is a need for assurance that before resources are committed there is some certainty of benefit and finally for assurance the stakeholders will have the opportunity to continue to participate in the CalFed decision-making process.

These needs for assurances have arisen from our interaction with our stakeholders.

Now, moving on to policy issues. We believe that CalFed's watershed protection role is an issue.

The issue paper in your packet suggests that water quality programs should perhaps have a watershed focus. We've asked for your advice on whether an appropriate watershed protection role for the water quality program would be focused on coordination and integration of local, regional, State and Federal efforts of others. We've also asked you whether you think it would be appropriate for the water quality program to undertake development of a comprehensive watershed wide means of performing water quality assessments.

Your views on these matters would be appreciated and we'll return to that last.

If I could just take a few seconds to mention

Page 137

some upcoming events.

We are having a Public Workshop on February 4th.

The next meeting of the water quality technical group is February 14.

And another meeting of the water quality technical group is scheduled for April 1st.

I cordially invite members of the Council to join us for any or all of these events.

Okay. As to our vision of the water quality program to be sure we are trying to do all of the things that I just talked about and we are hopeful that we'll be able to begin soon to actually do some of the things that need to be done for water quality in the Estuary, but to me the greater importance of our work is to gather the best water quality people and to build a team that will stay together for many years while the CalFed process moves forward into implementation.

Over the coming years many expert judgments and decisions will need to be made and we want to keep our team together to help us to make those decisions.

I believe only in this way will we be successful in the long-term in dealing with the many complex water quality problems affecting the Delta Estuary.

Mr. Chairman and Council members, I'd like to

Page 138

leave you with a quotation that I like very much from Winston Churchill, who said "It's not always sufficient to do one's best. Sometimes one must do what is necessary."

I believe this question -- this quotation applies very well to the Cal-Fed process, to all of us involved in this process and particularly to the Water Quality Component.

Indeed it would he know been enough for us to do our best. We are going to have to go beyond that to do what's necessary to succeed.

I don't know exactly how we are going to do that, but I have great confidence that we will because we have the advantage of having the best water quality people in California working with us on this thing, and in my mind that means -- that is to say we have the best water quality people anywhere.

These folks, I think you'll find that failure is just not an option.

Thank you very much for your attention and your interest.

CHAIRMAN MADIGAN: Thank you, Rick.

Are there members of the BDAC that have questions at this point? If not we should -- I'm sorry, okay, right. Robert and then --

MR. MEACHER: One, I suppose if the BDAC

Page 139

were to begin notices, since it doesn't appear on our calendar of technical meetings -- I didn't jot it down -- are you going to start jotting those down or posting them with the rest of our CalFed meetings?

RICK WOODWARD: I think that's a very good idea.

MR. MEACHER: And to date who is on that? Anybody know?

CHAIRMAN MADIGAN: Let's find out an answer in terms of our being informed.

Is there somebody who can tell us whether or not the BDAC is going to get as a regular matter of our information the scheduled dates of those meetings?

(No response)

Well, we'll find the answer to that one out.

MR. MEACHER: I had another question.

Are you asking for considerations today those two items --

RICK WOODWARD: Yes, today or any other time.

MR. MEACHER: -- a consensus?

CHAIRMAN MADIGAN: Or at least for discussion.

EXECUTIVE DIRECTOR SNOW: Discussion.

CHAIRMAN MADIGAN: I think we should

Page 140

discuss them.

I want to go ahead and get any questions that you have about the specific presentation out of the way because I do want to discuss those two items.

MR. MEACHER: Okay. Then I'll wait.

CHAIRMAN MADIGAN: Judith.

MS. REDMOND: One question I have is actually whether -- it seemed like the role of agricultural pesticides and water quality wasn't clear to me.

I was wondering how they ranked, related to some of the other water quality issues that you are addressing and what some of the approaches you are using to deal with them are going to be.

RICK WOODWARD: We haven't ranked the problems as in terms of which one is more important than the other.

I think that we are still in the process of sorting that sort of thing out, although, of course, we are very well aware of some data that would indicate that at certain times toxicity from pesticide residues can be a problem.

But we haven't necessarily suggested that any one problem is more or less important than another. I think that that really depends upon to what beneficial use are you directly concerned?

Page 141

And I think all of these water quality parameters of interest are of interest to some part of our community so we are trying to work through them sort of in tandem rather than by prioritizing.

CHAIRMAN MADIGAN: All right. Then why don't we get on and -- yes, I'm sorry --

MS. REDMOND: I had a couple other little questions.

CHAIRMAN MADIGAN: Sure.

MS. REDMOND: I noticed that the question about agricultural pesticides is motivated because it hadn't really been mentioned in the earlier presentation or in this one.

CHAIRMAN MADIGAN: Okay.

MS. REDMOND: And the second question had to do with land conversion. I know there are a lot of people who are very concerned about it and I don't mean to bring up a red herring question but I wondered if you had any sense at this point about the level of involvement in the land conversion and land retirement programs that are going on with the bureau and DWR and so forth?

RICK WOODWARD: Well, as mentioned in that discussion, the San Joaquin Valley drainage improvement program, their report identifies acreage that would be converted to other usage, some 45 to 90,000 acres and we

Page 142

are essentially using that as the guideline for what might be appropriate to do with respect to water quality.

CHAIRMAN MADIGAN: Okay.

MS. REDMOND: I have a third question.

CHAIRMAN MADIGAN: Sure.

MS. REDMOND: This actually isn't as much a question as just a statement.

And, that is, that in reading the items in the booklet I was very amused to see that watershed management was included in this -- the Water Quality Component because I think that watershed management can be a very important way to store -- to enhance a watershed's ability to store groundwater and to release it slowly and that, you know, we often think about dams and engineering solutions and I think that research that we've seen is showing that using various different approaches in watershed management; for example, plantings of native perennial grasses and so forth can really enhance the ability of rangelands to restore water and restore groundwater tables and restore little natural springs in a watershed to clean water as it goes into the ground through the percolation process.

So I think that as this component of the program evolves and the definition of watershed management broadens, that that will be a very important area and I was really glad to see that it had been included.

Page 143

CHAIRMAN MADIGAN: Okay.

MS. REDMOND: I guess if I was going to frame that as a question, I would be curious if the technical group has looked at the use of native perennials grasslands and enhancing range practices and grasslands to improve the ability of the watershed to hold water.

CHAIRMAN MADIGAN: Rick.

RICK WOODWARD: The -- I think that this does bring up a good point.

The area of water -- first off, I think that depending on whose definition you would care to use for watershed management that might conceivably apply to anything that CalFed might do or think of doing.

So for the water quality program I think what we are defining as our area of the watershed management is watershed protection for water quality.

So I don't think that the use of perennial grasses and so forth to enhance flow would necessarily fall within something that the water quality program would undertake, although it would be likely with some of the riparian work that would be done that there would actually be some water quality benefits accruing to it, but I believe that we'd probably look to some of the other elements of the CalFed Program to take the lead on something like that.

Page 144

CHAIRMAN MADIGAN: Lester.

EXECUTIVE DIRECTOR SNOW: Judith's question has revealed an issue I know that Bob Meacher had, also, and that is what we had done because we are presenting the water quality program has pulled out the broader context of the watershed management the specific water quality aspects of it, however, there are other aspects of effective watershed management, including the habitat and the water supply benefits and even some aspects of flood control benefits associated with healthy watersheds.

That concept is in our program and we are currently working with RCRC, Sierra Nevada Alliance and other groups to come up with that kind of tight definition that includes all of those components.

But what Rick has shown today is that piece that clearly fits into our water quality strategy but those other elements of watershed management are still there.

CHAIRMAN MADIGAN: All right. I have several questions.

Bob and then Alex.

MR. MEACHER: I suppose you may not be able to answer all of these right now, Lester, but where would you see, like Judith's question, the grasslands fitting in and some of these other things, under what

Page 145

discussions or workshops, round tables would some of those issues that she raised be the venue for that of CalFed structure?

EXECUTIVE DIRECTOR SNOW: Probably the next place that that issue comes up is within the context of the ecosystem program where there is issues of watershed management and rangeland management, kind of specific to that point, that are a component of tributary restoration and ecosystem program.

It's not as clear in the context which comes up in the water supply issue and that's why we are still trying to come up with that comprehensive definition because one of the things that we noticed and I know those of you who work in this field know this all too well, is that people say the term watershed management, everybody nods as though they agree on what the definition is and you scratch the surface and find out they have very different definitions of what that means and we are trying to come up with a good, strong, clear statement of what watershed management means in the CalFed Program and so we are attempting to work with the interested parties to come up with that and then bring it back through the process.

CHAIRMAN MADIGAN: Alex and then Marcia.

MR. HILDEBRAND: I don't think we've given Rick the direct answer to the question he has on the

Page 146

screen.

While recognizing the complexities that Lester has just discussed, which are very real, my answer, nevertheless, would be yes to that question.

CHAIRMAN MADIGAN: All right. There is a vote for a yes.

Thank you.

Marcia.

MR. BROCKMAN: I'm interested in how you are going to coordinate with the State Water Resources Control Board which has initiated -- well, the watershed management initiative.

It's my understanding that the regional boards are taking the lead on watershed management.

Are we talking about CalFed just doing water quality coordination or how exactly are you working with the State Board on this?

RICK WOODWARD: Well, with respect to the State Board there is a meeting actually today over there to talk about some of the watershed protection -- or watershed management funding from Prop 204 and our staff are attending that and we have a meeting set up with them about next week to talk about it.

I think what our approach to this is going to be is that we will just coordinate fully with both the

Page 147

State and the regional boards in their implementation of their work. And we've talked to them and I think they are very anxious that this coordination be a very positive thing so I'm very optimistic that we'll do a good job on that.

CHAIRMAN MADIGAN: Michael, did you want to add to that?

MR. MANTELL: I just wanted to add that the proposed budget for next year actually includes a major watershed initiative that goes beyond just the Water Board and the Regional Board.

It includes the Department of the Forestry and Fire Protection, the Department of Conservation in its work with the RCD's and our Department of Fish and Game and it totals about four million dollars to do watershed assessments, to form alliances, to improve water quality and also to ensure that we are not just -- the State Government in regulating in water is not just reacting to permits that come through but is looking at what the broader needs of the watershed are and then assessing permits applications within that and assigning mitigation as well.

So there is a lot of opportunity I think for --

CHAIRMAN MADIGAN: Are we running the risk of some duplication of effort of CalFed?

Page 148

MR. MANTELL: I think we can at the right time that it can be added and that's what I would want to help Foster.

CHAIRMAN MADIGAN: Okay.

Roberta.

MS. BORGONOVO: I think Marcia was asking the question I had, which is what would be the role of the State Water Resource Control Board since that's been a focus of theirs.

But I think it also relates to the question is it appropriate?

I certainly think that there needs to be a lead agency that will assume the overall coordination and integration of the role and because you have CalFed perhaps it answers these questions that not having duplication since those agencies are already involved in that, but I think it also will relate to some of those other questions because I'm glad that Lester mentioned that this is part of an overall watershed program and so when you pull out the one piece the question is are you also doing watershed management for ecosystem restoration and all of that.

CHAIRMAN MADIGAN: Mike, do you have any thoughts on this?

MR. STERNS: Well, I think it's really a complicated process.

Page 149

You know, from my perspective the local folks have gone a long way in developing drainage reductions and it's all been done through the basic plan amendment and Regional Water Quality Control Board input.

I do see the CalFed process needing to factor that into the solutions in the Delta and providing that information to all those that are involved, but I would hope that the process is in place as it happens would be able to move forward without another layer of involvement or regulation.

CHAIRMAN MADIGAN: So there is a note of caution here in terms of our duplicating things and maybe what Michael said earlier, we need to consider. Okay.

Let me, having heard that, there is always a great temptation to say, yeah, you bet we should do these things, too, and there, apparently, is a role for us here.

And I guess my feeling is that we should approach it, Lester, with some caution because there are existing institutions who have some of these responsibilities and that we ought to be identifying what our appropriate role would be in working with them and supporting local and State agencies to -- and, certainly, in terms of the first question.

I don't know. Other thoughts?

MR. MEACHER: I have one, Mr. Chairman.

Page 150

CHAIRMAN MADIGAN: Bob.

MR. MEACHER: It doesn't appear on the screen but in your book on the second to the last page where this is written it says "In accomplishing its water quality mission is it appropriate for CalFed to assume an overall coordination and integration role in watershed protection including", and then they have the two bulletin items up there I guess I would submit to BDAC that the watershed protection as defined in this is part of an overall watershed plan.

And we are sort of pigeonholing this one thing when I see the watershed protection is part of a larger picture. Where these two statements fit with what Lester was saying about upper watersheds, forced management, forced help, and we'll be going back and having to do this over and over again so if I'm making any sense here I would just say watershed management and for the purposes of this we are talking about watershed protection.

Am I making any sense to anybody here in this room?

IN UNISON: (Affirmative nod)

CHAIRMAN MADIGAN: Other thoughts on -- particularly on the first bullet? (No response)

CHAIRMAN MADIGAN: Okay. Rick, is that helpful in terms of things, what you were looking for?

Page 151

RICK WOODWARD: It's quite helpful. Thank you.

CHAIRMAN MADIGAN: Let's go on to the second one, a leadership role in coordinating water quality assessment activities in the watershed, data collection protocols, application of Quality Control standards and analyses, that sort of thing.

Thoughts? Michael, maybe I should ask for your opening thoughts because some of that clearly has already taken place.

MR. MANTELL: Yeah, I'm more than happy to facilitate greater collaboration among the State agencies. I mean, I may not be addressing it exactly correct.

CHAIRMAN MADIGAN: My fear, I guess, is that I want us to be -- in the CalFed process to be helpful in this because it's an important question, but I don't want us to take on responsibilities for something that somebody else is already doing well.

MR. MANTELL: Let me just -- first of all, we have -- there's a number of coastal watersheds. They are the focal point of our initiative and that clearly would not be in the ambit of CalFed.

Particularly in the northern coastal areas.

In terms of the watersheds that are part of the solutions set for CalFed, I just don't know yet about the

Page 152

leadership role. I think that has to be sorted out. I think that there is a definite role and it may be that it evolves into a leadership role.

But I think that we need to have a series of discussions to work that through and you've got regulatory agencies, particularly at the State level but also in the Federal level that have significant responsibilities and this has got to be more of a collaboration than just assigning a leadership role.

CHAIRMAN MADIGAN: Thank you.

Mary and then Ann.

MS. SELKIRK: Yeah, I just wanted to comment.

I don't know if I would see CalFed having a leadership role in this sense.

Certainly, among urban water districts both formally and informally there is an enormous amount of effort taking place to benchmark certain kinds of water quality, assessment practices and waste water treatment practices and all of that kind of stuff, a lot of which will ultimately, I assume, be driven by Federal drinking water standards and requirements.

And so it seems to me more that we just need to ensure that whatever efforts are going to be advocated by the preferred alternative in the final EIR are consistent

Page 153

with and are supported by both State and Federal efforts.
I don't see the CalFed staff taking on that role.
I think there is a place for the program to encourage that kind of ongoing collaboration. I think a lot of it is happening already so . . .
CHAIRMAN MADIGAN: Okay.
Ann.
MS. NOTTOFF: Yeah, it seems to me, though, that, you know, the findings and recommendations that CalFed comes up with, for example, the one that struck me there was the example of boating waste.
And certainly the State Water Resources Control Board has the regulatory authority to regulate non-point source water pollution and one might argue that they should have done it already but, certainly, I think one of the things that ought to come out of CalFed is to say develop -- you know, put a program in place where you regulate and enforce the discharge of water, boat waste in the Delta and in other areas. I mean, that's the kind of coordination that I think needs to come out and then we need to take advantage of the regulatory authority that already exists with State and Federal agencies.
CHAIRMAN MADIGAN: Clearly water quality is a big deal to this organization in terms of the

Page 154

implementation of a Bay-Delta solution.
Clearly, there are institutions out there who have various pieces of this State and local that we don't want to tromp on. Clearly there are going to be recommendations out of this group that are going to have impacts of one sort or another on those other State and local agencies, either do it better or you should be doing this or this guy is over here, the two of you need to work together or things like that and so maybe we are beginning to define that sort of CalFed role and things as being not leadership but being helpful and supportive and encouraging and maybe pushy when the -- when that's required.
Okay. All right. I got it.
Yeah. Go ahead. Richard and then Alex.
MR. IZMIRIAN: I would like to see this cooperation on a nationwide or watershed basis to follow more of a CRIMP model, a coordinated resources management planning model where the CalFed's role would be in the implementation phase.
Then one of the criteria for funding for funding for implementation would be a program that integrates into a basin wide watershed plan.
CHAIRMAN MADIGAN: Alex.
MR. HILDEBRAND: I just wanted to clarify that my earlier statement referred to the first part of

Page 155

this.
I concur in reluctance about the leadership aspect.
CHAIRMAN MADIGAN: Okay.
Appropriate -- sure, Ann.
MS. NOTTOFF: For clarification, I mean, when we talk about CalFed and the State Water Resources Control Board, State Water Resources Control Board is part of CalFed so it's not like we are separate.
CHAIRMAN MADIGAN: Right. We have met the enemy and all that jazz, right, exactly. Okay.
Mary.
MS. SELKIRK: I'd make one other comment.
I think at the very least CalFed has an opportunity to take the, what do you call it, the inspirational position that issues of ag water quality, point source, non-point source pollution discharge and urban water quality are really all of the piece and that they need to be dealt with in that manner. I think historically that hasn't been the case.
So as I said -- along with what I said before that our role or the role of CalFed may be more the designer rather than the --
CHAIRMAN MADIGAN: Right. No, I understand that.

Page 156

That makes sense Mr. Yaeger, did you want to say something?
MR. YAEGER: I just wanted to respond to the earlier question about the notification for the meetings of the water quality technical teams.
We have drawn a distinction between the technical teams and, for instance, the work groups.
The work groups were formulated by BDAC to address policy related issues and to present policy recommendations to BDAC, whereas the technical teams that we have formed are more informal teams and really focus on technical expertise on every one of the members.
We've tried in the case of the water quality technical team and the levee technical team to cast the net pretty widely, include interest groups across the spectrum but try to kind of keep the invited list to those who have relatively a technical expertise we are looking for to help us in those areas.
So that is why the meetings do not appear on the CalFed calendar.
That calendar is distributed widely and shows up on our web page and all of those kinds of things, but we would be glad to in your BDAC packet every month provide the dates that the technical teams and levees and water quality are meeting if that meets your needs.

Page 157

CHAIRMAN MADIGAN: Okay. Thank you.
Mr. Mills, would you let Mr. Meacher know that as well? He asked that question earlier.
Thank you.
This would be an appropriate time for members of the public who have questions or comment in regard to this item.
I don't have any speaker slips.
Mr. Petry, come on up, sure.
Good afternoon.
MR. PETRY: Good afternoon, Mr. Madigan and members of the Council.
I'm Ed Petry from Mendota, a private citizen who has a lot of concerns about my area.
When we talk about land conversion, when we talk about land retirement, when we talk about watershed management, I'm on a current committee with the Pinoche Creek CRIMP Committee out of Mendota, and from what I see with land management in the area or trying to have some kind of growth on the soils, we've had the heavy rains come down here most recently. We've had a lot of growth in the watershed area but still we have contaminants coming down.
And the contaminants coming down are pretty heavy stuff, when you talk about boron and you talk about selenium and you talk about salinity, and things that are

Page 158

not only affecting agriculture, they are also affecting fish and they are also affecting people.
When we stop and think about the 45,000 acres that was plumbed west of Mendota in the underground plumbing for the San Luis drain, well, where did those contaminants come from to begin with?
They came from the hills. 295,000 acres of watershed that comes down Pinoche Silver Creek, goes back into Fresno County and San Bernardino County.
I don't know how many years I've been working with watershed management as far as trying to grow things on these areas that won't grow nothing.
You can fly it, you can look at it, you can drive it.
I went up to Jack Ass Pass all through there and came on down to little Pinoche Creek.
Everything was green except the troubled areas.
Now they are talking about trying to grow things from other areas. We are introducing a plant species from some place else like we did with the stripers in the Sacramento Delta.
Then they are talking about, well, they won't grow so we'll fertilize it.
So are those fertilizers going to contaminate the ground?

Page 159

In my opinion, and it's only my opinion, agriforestry doesn't seem to be working, neither does watershed management as far as trying to grow things in the watershed. Not in the spots that are as hot of areas where there is 489 parts of selenium
And that's on record.
I'm troubled with 230 parts down in the grasslands and the wetlands and where does it come from?
It came from the San Luis drain. Where does the San Luis drain plumb in? From the 43,000 acres west of Mendota.
That's where I came from and that's a big problem. You talk about land retirement, how about third party of pets and land retirement. What do we do with them people that earn a living from them 43,000 acres?
And we are going to bring back the social economics in another manner.
If we are going to retire land, all right, retire it, but retire some for the benefit of wildlife but then retire some for the benefit of industry.
Upgrade the work force, give us an ag related industry west than Mendota to bring back the social economics.
Retire some of the land and bring back the pheasants like it used to be 40 years ago when you couldn't

Page 160

drive back and forth to work from the ranch to the headquarters without running into pheasants. It used to be like that. It isn't anymore.
The quality of fish in the Mendota Pool, where is the contaminants coming from?
They are coming from the Pinoche Hills that runs through Mendota.
We had substantial flood flows this time, more than we can handle. Some houses got wet.
We've seen it for 40 years. Something needs to be done about the water quality.
When it shows the Central Valley region here it shows where the San Joaquin River turns in the Central Valley region and goes north. Well, just south of there is where we are, south and west of there. It needs to be controlled, point source of pollution.
If you are going to retire the land or wildlife, is the wildlife going to be able to exist there with that type of contaminants?
Agriforestry is fine, but it takes the good water from the bad water and leaves the contaminants. You have a residue leftover.
What do you do with it? You put it on the paved roads, onto slabs, under parking lots. You don't have to take it to hazardous waste dumps. You were in

Page 161

construction. You know what happens there. It won't bleed off on to the ground. Make use much it.

You'll turn a liability into an asset.

You can bring back the social economics. You can retire the land. You can take care of the contaminants, but we are going to have to get a handle on it sooner or later because it's going to keep getting worse.

I'd like to compliment the Bureau of Reclamation, the Corps of Engineers and the State.

The Bureau of Reclamation had control over the flows. It was something that they couldn't control.

The Corps of Engineers handled a flood situation that was drastic and they done a hell of a job with it, and the State was very, very helpful in all the areas, in all of the troubled areas and I think they need to be commended.

If anybody wants to sue anybody, I'll give them the number of the Good Lord and they can call him and file suit on him.

I tried to call Alex Hildebrand right after the first of the year and Alex Hildebrand, and somebody answered the phone said he was on his way out of the house with a shotgun and I didn't know if they said he was looking for Roger Patterson or was he going to go hunting

Page 162

with him, I couldn't tell which, but they are both still here and they are getting along together and this is the cooperation that we need.

Thank you.

CHAIRMAN MADIGAN: Sometimes you just go out there and whoever you find first, you know.

Thank you, Mr. Petry.

Other questions or comments by members of the audience?

All right. If not then, Rick, thank you very much. I hope their comments have been have some assistance to you as you formulate the program.

Thank you.

Water use efficiency program description. Let's see. I guess, we must be to the other brother, Rick.

Hi, Rick.

MR. SOEHRN: Well, first of all, I'd like to commend my other brother Rick. He is a hard act to follow with that presentation. I'm going to have to rely on old-fashioned overheads today, I am afraid.

Today I'd like to summarize the water use efficiency common program, what we've accomplished so far and highlight some of the issues that we have identified and where we'd like some guidance from BDAC.

In your packet there was about a five-page

Page 163

issue summary that highlighted some of the issues and described some of the accomplishments, as well as a longer paper that is sort of a discussion piece that we've been working on in the context of the water use efficiency work group.

After we get some guidance from BDAC today our next step will be to refine that discussion piece and to start to put it into a typed program description of the water use efficiency Common Program that we'll carry forward into a component integration and impact analysis.

Just a real quick review of the program elements in water use efficiency.

Urban water conservation, ag water use efficiency, efficient use of environmental diversions, water recycling and the last one that we've included which isn't strict physical efficiency but we have included water transfers in the hopper of tasks for the water use efficiency work group to examine.

Just a little overview of the approach that we've taken with water use efficiency.

First of all, it's policy not technical.

We are not looking at what kind of structure a toilet replacement program should have for an urban agency or what kind of canal control structures an irrigation district should be contemplating or installing.

Page 164

We are strictly looking at the policy measures.

Fortunately, there are other forums that are looking at the technical measures.

Second, and this is very important, our entire approach is based on cost effectiveness.

Our outlook is that if an efficiency measure is cost effective for an urban agency or an irrigation district, they should be implementing it.

If a measure is not cost effective and the agency can't find someone to help pay for it and make it cost effective, then they shouldn't be asked to do that measure. It's as simple as that.

Our approach relies on locally directed processes. There is an Urban Water Conservation Council and now a new Ag Water Management Council that have identified the appropriate practices for agencies to look at to analyze and perhaps to implement best management practices on the urban side and efficient water management practices on the ag side.

Very important is that this effort is to be supported by planning, technical and financing assistance.

You'll see that throughout the specifics of actions that we talk about it's going to be very important that we provide the necessary tools, the necessary information to agencies and districts so that they can

E-014082

Page 165

analyze measures appropriately and implement those that pencil out for them.

And, finally, and we'll talk about the issues related to this later, we've proposed that the program be supported by assurances, that we really are going after the cost effective measures.

MR. HASSELTINE: Before you leave that could you enlarge a little bit on that cost effectiveness comment you made?

It left me with the impression it's sort of a take it or leave it depending on whether or not some local agency could find a way to get people to agree to the financing aspect of this.

MR. SOEHRN: Well --

MR. HASSELTINE: That doesn't seem to be consistent really with what I thought we were doing in the program overall, anyway.

MR. SOEHRN: Well, let me expand on that just a little.

The whole approach of the urban Memorandum Of Understanding and the ag Memorandum Of Understanding is based in cost effectiveness.

On the urban side we've identified 16 measures that are usually going to be cost effective for urban agencies to implement and when they sign that MOU they are

Page 166

asked to implement those measures unless they can conduct an analysis allege show that a measure is not cost effective for them in which case they can exempt themselves.

The approach on the ag side is a little different. The analysis comes first and there is an identified list of measures. Districts are asked to conduct a benefit analysis. If a measure is cost effective for them, they implement it.

Sometimes there are other ways to swing that cost effectiveness and to be able to implement a measure.

A good example on the urban side is toilet replacement programs. It saves water for the water agency and reduces volumes for a treatment agency, not loading but volumes.

So there may be benefits for two different agencies. There are opportunities for joint funding of programs like that.

So that's what I meant by the comment sometimes there are other agencies that can help out.

Does that help?

MR. HASSELTINE: Yeah.

Thank you.

MR. SOEHRN: Just a little bit more about efficiency.

Page 167

We've talked at BDAC meetings about different kind of efficiency.

First of all, is physical efficiency, and that's something that we can achieve directly through the actions that we propose in the water use efficiency Common Program; conservation measures, water recycling supported by the planning, technical and financing assistance that we have proposed.

Another type of efficiency that we talked about is the greatest achievement of CalFed objectives from the management of each unit of water.

And we can also pursue that kind of efficiency directly through some of the actions we've proposed.

Through the process, particularly, the net benefit analysis planning on the ag side, we may be able to identify opportunities where there could be water quality benefits, ecorestoration, habitat benefits, from an alteration in the management of local water supplies.

It may not be cost effective for a local irrigation district or a local water user to do that on their own. If it helps meet CalFed objectives it may be appropriate for other sorts of funding to be attributed to some of those sources of actions.

Finally, economic efficiency, of course, the conveyance and storage element is moving toward economic

Page 168

efficiency, but in the water use efficiency part of the program we can move toward economic efficiency indirectly through a voluntary water transfers market.

With conveyance and storage measures facilitating a voluntary transfers market safeguarded by the proper assurance that will move us toward economic efficiency in some cases, as well as moving us toward physical efficiency. Transfers can help pay for some of the conservation measures that otherwise might not be feasible for a grower or a district.

Water use efficiency, the Common Program, is different from the other components of our alternatives in a pretty fundamental way.

Most of the water use efficiency actions that will get taken will be taken by local agencies, not CalFed agencies.

The role for CalFed is going to be support, making sure that we have adequate financing, technical assistance, planning assistance so that local agencies have the tools that they need and devising and bringing to fruition assurance mechanisms so that agencies are implementing cost effective measures.

In the work group forum we have been able to agree on some general objectives, implementation objectives for the water use efficiency Common Program and these

Page 169

include ensuring a strong water use efficiency component for the Bay-Delta solution, emphasizing incentive disincentive based tools over regulatory tools and that's where the financing, the technical assistance, the planning assistance comes in very heavily, preserving local flexibility, both on our urban conservation approach and our ag water use efficiency approach.

We are depending on locally directed processes that help us out, that offer local flexibility, different ways of implementing measures, looking at the cost effectiveness of measures, only implementing them if they are appropriate.

We've agreed on a general objective of moving disincentives and barriers that we are able to identify for efficient water use.

I'll repeat again.

It's an important objective that the group identify to offer greater help in planning, financing of local water use management and efficiency improvements.

And finally that the group reached general agreement that it was an important objective to provide adequate assurance that water will be used at highly efficient levels.

We've also reached agreement on some actions for urban water use efficiency.

Page 170

There is an Urban Water Conservation Council that has been functioning very successfully for about five years now, and it seems obvious to us that that is the proper forum for developing and maintaining a dynamic list of urban best management practices.

Five years ago that group came up with a list of 16 measures that at the time seemed to be the range of measures that urban agencies should be examining and probably implementing.

Now the Urban Council is going through a process of re-examining those measures to see which ones are really panning out, maybe some that really shouldn't be on the list at all, refining others as we've been able to learn more about them and improve our methods of implementation.

Improved water management planning. On the urban side we've had an urban water management planning act in the State Water Code for about 13 years now.

Agencies on the urban side are asked to prepare, adopt and implement water management plans and report on those activities to the State.

The Department Of Water Resources has been very active in providing assistance to agencies with all aspects of their water management planning that can help with water supply reliability, whether it's examining options for new

Page 171

supply, whether it's looking at drought contingency measures and shortage plans to make sure that an agency is prepared in advancement.

So providing help along those lines is important.

And, finally, once again, funding assistance and technical and planning assistance, very common in our approach.

We've also talked about assurances in the context of urban water use efficiency and since there are some issues there I'd like to bring those up last in the presentation.

We've also discussed agricultural water use efficiency actions, come to agreement on appropriate actions there. First of all, water management planning.

Once again, we have a new stakeholder based organization, the Agricultural Water Management Planning Council. I hope I got that right.

And this is an organization that is taking on the task of preparing and maintaining a dynamic list of efficient water management practices.

They've started with a list of measures that is embodied in the ag MOU and the expectation is that over time this list may be changed, refined, improved upon.

Once again, technical and planning assistance.

Page 172

The Bureau Of Reclamation, the Department Of Water Resources have offered technical and planning assistance to water users for a long time.

There are probably opportunities for additional assistance. Maybe different ways of providing that assistance that are more effective, working more through RCD's and so forth, funding assistance, another important element.

Just the other day I got a report from the Department Of Water Resources about lateral move sprinkler systems and it identified a number of benefits for that kind of irrigation system, improved yield, more uniform water application, and so forth, but there is an incredible cost, sometimes $300 an acre to develop an irrigation system like that.

It may save water, it may be a good idea, but it's very likely that a grower is going to need some assistance to fund a measure like that.

Coming up with the cash in advance shouldn't be an impediment to implementing it, an efficiency measure if it is going to be cost effective.

And finally in the area of agricultural water use efficiency we've included an action to identify and implement management improvements to achieve multiple benefits.

Page 173

I mentioned this earlier.

There may be opportunities, particularly in the ag sector, to make improvements in water quality or the timing of diversions or enhance habitat through changes in the way water is managed, particularly at the local, the district and the grower level.

Where those opportunities exist and they meet CalFed objectives but they are not cost effective for the District or the grower to implement on their own we should have a process to examine those, if they meet CalFed objectives perhaps CalFed agencies can contribute to the implementation of measures like that.

So an important linkage with some of the other aspects of the Bay-Delta program.

We've made the most headway in urban conservation and ag water use efficiency.

There are three other elements that we have started to look at or will look at.

One is efficient use of environmental diversions.

Now, on the urban and ag sides by comparison we have had a list of best management practices for five years now.

We've recently reached agreement on a list of efficient water management practices so some of the

Page 174

technical work has been done.

With efficient use of environmental diversions some of this technical work is still happening. It's still taking place.

Some of it is an outgrowth of CVPIA.

Right now there are several CalFed agencies who are involved in an effort to refine the types of measures that might be appropriate, especially for refuge water management.

The U. S. Fish and Wildlife Service, the Bureau Of Reclamation, the Department Of Fish and Game, and at the local level, the Grasslands Water District are all working together on sort of a separate parallel process to what we are doing in CalFed, to look at efficient use of water on refuges.

They've just hired a contractor to help them with this and they are expecting to have a very open public process with a lot of stakeholder input. So I expect that in the CalFed Program we will perhaps be looking at implementation objectives that are consistent with what we are doing in urban and ag and perhaps look at a broad framework of the kind of assurances that we feel might be appropriate from the perspective of the CalFed Program and pass that information along to the Calfed agencies who are working on this separate effort at refuge water management

Page 175

and efficient use of water on refuges. Water recycling is another area for efficiency with a lot of potential.

Once again the level of information that's readily available to local agencies isn't quite up to what it is for urban conservation and ag water use efficiency.

Right now the California urban water agencies along with the water reuse association and DWR are preparing a recycling analysis guide book that could be used by a local agency to do an initial analysis of whether a recycling project might be cost effective and feasible in a local area.

And we expect that that will be a big help in the future as agencies look at recycling and as they look at the potential for recycling to improve their reliability and balance supply and demand.

This is a very new area. Recycling projects are generally very capital intensive, very expensive, take a long time to plan and implement. So probably there will be a different level of assurances that may be appropriate there. We haven't had too much discussion of that in a work group yet.

And, finally, water transfers.

It's different from the other elements we've talked about and it is not a physical efficiency type of measure.

Page 176

There are some unique needs for assurances.

At a previous BDAC Meeting we talked about Governor Wilson's five points that he considered essential for water transfers that relate to assurance needs.

And, finally, making the picture a little more complex, there will almost certainly be other decision forums involved in developing public policy for water transfers. There was a Water Transfers Act. There is now SB 15, which will probably be considered this year that will refine public policy for water transfers so our task will be to figure out the appropriate niche for CalFed in all of this and to move forward there.

Just a word about impact analysis.

Once we have refined the elements of the water use efficiency Common Program we'll be able to look at the impacts that the program might have and we'll do that by comparing the changes in implementation of efficiency measures that are likely to take place in the CalFed Program compared to both the current conditions and the no action alternative, what would happen in absence of a Calfed Program.

That may be a faster rate of implementation of urban conservation measures, for example, on the ag side if we are able to open a water transfers market.

It may be that we see more conservation

Page 177

measures being funded on the ag side because a transfers market opens up a funding mechanism for those.

We'll evaluate a reasonable range of approaches and implementation levels that we might expect to get as a result of the CalFed Program.

And that will really be based on making some assumptions about assurances that we do pursue cost effective conservation measures and that future supplies are used efficiently.

We have identified some issues in the work group forum.

Maybe just to summarize three of them for you, probably the most difficult issue that has come up is reaching consensus on assurances, and there we really haven't reached consensus on assurances.

In addition, there are some other issues that have vexed, that we haven't totally resolved yet.

There are concerns about the adequacy of some of the efficient water management practices.

There isn't complete consensus on whether that's the right list and the light level.

And, finally, there is another sort of longstanding issue that has faced water conservation for a long time, and that's a difference in the cost effectiveness of measures, depending on whether you are

Page 178

looking at a statewide level, a regional perspective or cost effectiveness from the perspective of the local agency who is actually going to have to pay to implement the measure.

Many local agencies that are served by wholesalers pay a melded cost for water and so if a conservation measure can be implemented at something less than or maybe a little more than that melded cost of water they'll go for it even though the marginal cost of new water supplies to a wholesaler may be far higher than that. So that's a difficulty that's been with us for a long time in water conservation and has so far eluded complete resolution.

Focusing in on the issues related to assurances, we have talked in the work group about a general assurance mechanism.

We have assumed that efficient water use is going to be a prerequisite for receiving new water from the CalFed Program, for participating in a water transfers market, and for receiving water from a drought water bank.

Now, a couple of these we are already well on the way of pursuing.

I mean, it is the policy of the Department Of Water Resources right now that in order to receive water from the drought water bank a recipient Agency must be

Page 179

implementing urban best management practices or efficient water management practices on the ag side.

As far as the transfers market, DWR has an existing application package that they use when a transferrer wants to use State facilities to transfer water, to move water from the transferrer to the recipient.

So there is an obvious mechanism there to include an additional question on that application, is the recipient implementing efficient water management practices, best management practices.

We haven't looked at the specific assurance mechanisms for making sure that new water from CalFed Program goes to agencies that are implementing efficiency measures. It's hard to do that when we are just at a very preliminary stage of discussion about what kind of institution may be involved in developing new storage or operating a conveyance facility.

So really the details for an assurance mechanism there have to wait until some of the other institutions are developed a little further.

And, finally, for ag water use efficiency and urban water conservation we have proposed some assurance mechanisms and this is where we've reached really the most difficult area in the work group discussions and the greatest lack of consensus.

Page 180

As an agricultural assurance mechanism, first of all, we want to go with a locally directed voluntary program if at all possible.

The new Ag Water Management Council is just getting formed. I think to date there have been something like a dozen irrigation districts that have signed. They are serving about a million and a half acres. There is one environmental organization that has signed the MOU to date. It's just getting off the ground.

We have proposed a two year cycle, which is the planning and implementation cycle called for in that ag MOU to give that process a chance to work, to see if that voluntary, locally directed process is going to get to a good strong level of implementation of efficiency measures.

And as a backstop to that we have proposed a trigger mechanism, that if after two years we don't have districts serving two-thirds of the irrigated acres in our solution area that have signed up, they have developed a water management plan, it's been endorsed by the Council, they are beginning implementation, if we haven't received at a minimum that two-thirds level, then we'd have to go to something that is stronger than a voluntary approach, and what we have proposed is an addition to the State Water Code of an agricultural water management planning act, similar to the urban act that I mentioned earlier, that

Page 181

urban agencies have been complying with for the last 13 years.

On the urban side we have proposed an expanded role for the Urban Conservation Council.

Right now that Council maintains a list of best management practices, is responsible for updating that list of practices and refining it.

They also gather implementation reports from signatory water suppliers, forward those to the State Board, and basically that's the extent of their responsibility or their activity in that area. Although, they do a lot of information sharing and studies as well.

We have proposed that their role be expanded to include some kind of certification process akin to the ag Water Management Council's endorsement.

And the authority for that Urban Council to impose noncompliance fees on agencies who are not implementing the terms of the MOU, whether that's implementing efficient practices that are cost effective or doing the analysis to show that they should be exempted because a measure is not cost effective for them.

And, finally, referring particularly recalcitrant agencies to the State Water Resources Control Board. Now, personally I am not entirely thrilled with that approach. It certainly wouldn't be a pleasant one to

Page 182

implement and I'm kind of afraid that having a stronger role and having a club in the hand of the Council could detract from some of the very positive work that it's doing now in terms of information gathering and sharing and research projects that the Council has done.

And so there is another effort underway that may help us to find an enforcement mechanism, an assurance that works better and has greater stakeholder support.

Right now the California urban water agencies and the Environmental Water Caucus are engaged in a process to try and recommend mechanisms to provide assurances that may have greater support from stakeholders. So those are the assurance mechanisms that we've outlined to date.

As I said, there is a resounding lack of consensus. On one side some stakeholders feel that having these assurance mechanisms is very important appropriate, very necessary.

On the other end of the spectrum some stakeholders have questioned the need for anything beyond a voluntary type of program for any kind of assurances at all.

So I'd like BDAC's guidance on whether the types of assurances we have proposed are appropriate to provide assurance that we are going to use our existing and new supplies efficiently.

Page 183

CHAIRMAN MADIGAN: Thank you, Rick.

Questions or comments by members of the Council?

Tom and then Roberta.

MR. MADDOCK: To refresh everybody's memory on 3616 and the plan to bring that into -- I mean, it's not going to happen overnight, and would you go over that a little bit there and bring that into focus?

MR. SOEHRN: Okay. Sure.

Starting about seven years ago agricultural interests and environmental groups started work on negotiating a Memorandum of Understanding for ag water management that was similar to the existing -- now existing -- urban water conservation MOU and the Council that exists on the urban side.

The negotiations, the talks, have been going on for seven years. Recently agreement was reached and a final MOU was prepared and distributed throughout the process.

DWR has been very supportive. They've offered to act as the administrative support for the new Ag Water Management Council.

The MOU that has been prepared lists a number of efficient water management practices, some of which every irrigation district should do, the so-called A list,

Page 184

some which irrigation districts should analyze and implement if they are cost effective and to make sure that we have a uniform analysis. Included with the MOU is a net benefit analysis methodology for districts to follow when they do that analysis.

And the third category of measures is the C list, the C category, which includes measures that districts are implementing in some way right now but perhaps they could improve upon their implementation.

And those two measures are perhaps the most controversial.

They are measurement of water deliveries and pricing of water.

The idea is that irrigation districts will sign this MOU, commit to this process of analysis and implementation.

The MOU calls for an initial two-year period for agencies to prepare, adopt and submit to the Council their initial water management plans and the MOU calls for subsequent, I believe it's, biennial, reports on the implementation of the efficient water management practices that a district has identified as being cost effective and feasible. When the plans and the subsequent implementation reports get to the Council, the Council is sort of bicameral in nature.

E-014087

Page 185

You've got irrigation districts on one side. You've got environmental groups on the other side.

And the Council will either endorse or withhold their endorsement of the plans and the implementation reports.

And in order to endorse a District's plan a majority of the irrigation district representatives on the Council and a majority of the environmental group representatives on the Council would have to vote to approve or endorse a plan.

And that mechanism was devised in order to be a very objective, very balanced process, to have a uniform analysis methodology, uniform planning, and an endorsement, a stamp of approval on planning efforts and implementation efforts that districts were carrying out.

So I think Brad Chin is in the room. Brad, you've given this lecture a number of times. Maybe if there is something I left out you can add it.

BRAD CHIN: (Inaudible) -- for the purpose.

CHAIRMAN MADIGAN: Okay.

Roberta and then Alex.

MS. BORGONOVO: I wanted to just sort of summarize my comments which are in the packet.

I've been involved in water conservation in the

Page 186

urban sector since the very beginning of the Bay-Delta hearings and I did also follow the ag water conservation for several years. I think that what I'm saying and many people in our work group are saying is that we see many elements that are on their way towards being a successful program and we don't think it's really aggressive enough and I just wanted to address why.

There is a real concern that if CalFed is looking at the three alternatives and they are looking at what is more or less a nonstructural alternative all the way over to a large dual isolated facility, that there has to be the kind of mechanism in place on the nonstructural side that would really make it viable.

And so when those of us that are involved in that effort we want a real emphasis on really cutting back on the demand in the system.

The whole intent is to try to have more water for the environment. That's it in a nutshell and it's to reduce the water that comes out of the system, to leave it in the system for fish and wildlife purposes.

So that's our intent and it's the intent, also, of the Environmental Water Caucus letter that was distributed after lunch and that Gary Bobker spoke to, we are really trying to emphasize that the whole range of tools ought to be there but it's really for more water for

Page 187

the environment.

That includes the whole issue of water transfers and land retirement or land reuse or whatever. It's really for more water for the environment.

It's not necessarily to take it -- it's not to take it away from ag and give it to urban.

So that's the whole basis of the statement we made.

So when it goes back to the water conservation element what we see as assurances is not saying that there shouldn't market assurances in place. We think that they can be very important, but the experience with a truly voluntary program we think will never emphasize that demand side.

And so what we have suggested in the urban sector and we would like to see in the ag sector is that you don't just have the market mechanisms. You will also have some sort of penalties and so the Urban assurances mechanism which has been succeeded is pretty close to what we are working on.

We have a lot of work to do because it still is an effort that has to go through the California Urban Water Conservation Council and we are still working with the CUWA groups in this sort of side effort but what we hope for is some sort of certification process after their performance

Page 188

standards are in place.

So we do see statewide performance standards. That's what we hoped for.

Then we see a way of water agencies being able to see that they could meet those because they are based on cost effectiveness criteria.

It does, of course, include an avoided environmental cost but I believe that's true in the ag sector cost benefit analysis also.

A certification process might be -- it might not be the Council. It might be the State Water Resources Control Board and then some sort of mechanism if that compliance can't be reached such as a noncompliance fee.

But we are doing it very much in an effort to have a consensus on it, but we think that that's very important for this overall goal which is to try to reduce demand on the system.

CHAIRMAN MADIGAN: Alex.

MR. HILDEBRAND: Well, I have a little different perspective on this, I guess, than Roberta, with all due respect.

In the first place, we already have an assurance mechanism in that the State Board is responsible for the reasonable use of water and I'm very reluctant to see us set up some other kind of assurance that goes

E-014088

Page 189

between CalFed and the State Board.
Furthermore I think that in trying to go for an involuntary mandatory sort of implementation of a very complex issue like this we have to recognize that in trying to squeeze the last drop of blood out of a turnip we are going to make a lot of mistakes. We are going to create a lot of adversary attitudes, and to my mind it's a mistake to do that at the same time that we are ignoring an entirely different approach to water uses efficiency.
We are not looking at the opportunities on a watershed basis to make better multiple use and reuse of water and there are substantial opportunities in that regard.
I am hopeful that the group I am collaborating with will have a memorandum agreed on next week which will explain what we are talking about as it relates to the San Joaquin River system.
We think that the proposals we have are a win-win for everybody. They are not very expensive. In fact, we already have identified a source for what few funds are needed.
And if we succeed in agreeing on that memorandum next week, I will send it to CalFed and hopefully you'll see fit to distribute it before next meeting and I've tried before but I'm trying again to get

Page 190

attention on this different approach. It's an additional approach. It's not a substitute. But I do think that it's a mistake to try to squeeze the last little bit out of this user efficiency before we look at another approach which has more potential than this squeeze.
CHAIRMAN MADIGAN: Following that up for a second, Alex, you would think for example, that leaving water in-stream for some period would be a credit toward -- for environmental purposes?
MR. HILDEBRAND: Well, particularly, if you can manipulate in this case, for example, the time that drainage waters come in the river to coincide with the fish flow so that the fish flow serves the dual purpose for salinity control at the same time as providing fish flow and thereby saving a lot of water that otherwise gets released to more water Quality Control. It makes that available then for fish flow or for something else and that's merely one example.
CHAIRMAN MADIGAN: Okay.
So then, Roberta, the notion would be to release the water from the Hetch Hetchy, let it flow to the Delta and pick it up from there and take it to San Francisco, I suppose, and San Francisco would then gain some environmental credits for having done that.
MR. HILDEBRAND: That's not the approach

Page 191

that we are suggesting because we are trying to have something that would be agreeable to all parties.
CHAIRMAN MADIGAN: It's just a question, no big deal.
Roberta, you wanted to follow.
MS. BORGONOVO: I'm very open to any sort of solution that gives you more water for the ecosystem so I don't close my mind to anything.
But I wanted to go back to why we had the effort for the urban water conservation in the first place.
I think that when you look for what we call long-term solution for the Bay-Delta, we are talking about a long-term protection of an ecosystem and none of us can see how you can continue to have urban growth over the long-term and not continue to impact that system.
So it's very important in the urban sector to have the conservation measures in place because that does a lot for helping to accommodate urban growth without putting a strain on the Water Resources.
But I think at the same time it's legitimate in the urban sector to say you have to have some sort of comparable effort in the ag sector.
It doesn't have to be the exactly same effort but it has to be a comparable effort.
But I want to go back to the statement that we

Page 192

would be interfering in what the Water Resources Control Board is doing.
We don't see taking away that regulatory authority at all from the State Board.
I'll just speak for myself and my own organization.
We've always supported the State Water Resources Control Board efforts but we see a process where agencies have been involved, and that's true in both the urban sector and the ag sector, they've been involved in helping write those performance standards.
And so we have assumed that they are reasonable and when we have a cost benefit analysis so long as it includes avoided environmental costs you really have that protection also from the agencies but in the whole effort of water development in the west, the idea that you would cut back in demand instead of increasing supply is just not part of our mentality. And so it's also that shift in thinking that we are trying to accomplish over the long-term.
I just want to go back and emphasize the goal.
The goal is really the protection of that ecosystem.
CHAIRMAN MADIGAN: Okay.
Stu and then Mary.

Page 193

MR. PYLE: I've been participating with the water use efficiency work group since -- BDAC and all of you, since this issue first came out last summer.

I think from the initial writings that we saw on this beginning in about July of last year, and I think I voiced a lot of my concerns about them.

Also, those concerns I think have been qualified in terms of what is now coming out of the paper.

The presentation that Rick has just made, that there has been a separation of the CalFed objectives as to those general objectives, those objectives that relate to ag and those objectives as they relate to urban.

If you remember, they first came out all kind of all bundled together. They have been segregated. I think they have been sorted out and we agree in general with just about all of those.

And some of the other major concerns I had, such as the tools that were brought in, those have been modified largely down to the simple tools that Rick has presented here today.

You've got a good presentation on that. The question of water transfers is still there. Nevertheless, that's been separated out as a water efficiency measure, but I still think that deserves a higher billing in the overall terms of the report that you are giving it by

Page 194

submerging it into the efficiency program, but that's another question to be discussed someplace.

But then in terms of what Rick has presented today I think that there is very little that we disagree with.

Mostly we agree with what he has presented here today.

Now, we have had some very controversial sessions in the water use efficiency work groups chaired by Judith Redmond and it comes from the situation that Roberta has just brought up, the request of the Environmental Water Caucus for greater attention to levels of performance that might come forth under the urban -- excuse me -- under the both ag and urban MOU's and some type of compliance to ensure that all water users are achieving some particular level.

And I don't know that we've solved that.

We certainly don't agree with what Roberta has been putting forth as she stated here today, but I think everybody needs to recognize that even though there is a controversy here it at this point is not reflected in the presentation that Rick has made.

In what he stated here he's talking about assurances which are those -- which, again, we disagree with using the term disincentives and incentives,

Page 195

disincentives as a tool. We would prefer to see it strictly presented as an incentive basis without the disincentives, but we do recognize that those are there in terms of the water transfers, the attainment of additional water supplies, et cetera.

We don't see how you'd do otherwise in that -- in some purpose of a program.

In terms of the two-year program, a two-year period and you either get with it or we are going to come down hard on you, I don't think that's the right way to go at this either.

I think there should be some type of a more information based approach to this.

The question with a lot of water districts is not that if you guys start doing this process, that the ag MOU or the urban MOU has come up with within two years we know that then you are doing a good job.

The question is where have these water suppliers come from over the past couple of decades since we have been wrastling with this problem?

I know that districts and the growers in our area have been putting a lot of money and a lot of effort into improving water use efficiency.

And I have told many of you that we can document increases and improvements in water use efficiency

Page 196

in Kern County over a ten-year period, but I think what has to be given attention here is some way based on information available. It may take us more than two years to get that information. There should be some way of telling whether a water district is at a level where it needs to spend a lot of money to make improvements or whether it's doing about as good as possible under current economic levels and we think that both the ag and the -- at least the ag MOU with its cost based analysis to determine whether a measure is cost effective is going to help you do it -- is going to help do this, but it may not happen in two years.

And, on the other hand, they may already be doing everything that needs to be done.

So I think somehow we need to revisit this assurance effort and not assume that we can endorse the two years and I don't know what the other limit was comes along with that.

But we have -- I submitted a letter to you, Lester, which sites some of these concerns and I think you'll recognize that a lot of them are supported.

We also have submitted to you a draft of the longer paper that was presented by the staff on the water use efficiency in November and we've given you detailed comments on that.

That same paper has been submitted to you by

Page 197

Brad Chin on behalf of Farm Water Coalition who, I think, was instrumental in preparing it and it represents the input of many ag districts throughout the Central Valley.

And I think if there were a way that we could sit down in a smaller group and look at the fine points in that paper as compared to what the staff is using now I think we could come closer to it.

And I think, Roberta, if there continues to be an insistence on some type of compliance and enforcement, it's going to be a continual struggle, battle, hassle, with those of us who think that it's not the way of us to go about right now and I think it will be, let me say, inefficient in helping the CalFed people in achieving their goal here and I think when we want to do now is achieve the CalFed goal and I would hope that we could come to some agreement on this backing up basically what the staff has here, with these changes, as I say, that we are looking for.

CHAIRMAN MADIGAN: All right. Thank you. I have Mary and then Judith.

MS. SELKIRK: I have sort of several different sets of remarks I want to make, but I do want to respond to a couple of things that Stu just said.

The way the ag MOU, as I understand it, is written now, there is a voluntary two-year period during

Page 198

which time ag districts are invited to submit a plan and the quote unquote we'll come down hard on you after two years is really the invocation of a potential legislation like exists for the urban water management planning act and to my understanding there is no penalty for an urban district not fulfilling that requirement, or if it is, it certainly isn't one that is particularly severe.

I think it -- Stu may be overstating the case somewhat here.

And I also -- I'm somewhat frustrated by the presentation today because I think it doesn't accurately reflect the heated debate in the water use efficiently work group that I think is around both the issue of assurances, implementation and also around some substantive differences in perspective having to do with definitions.

We've had some debate hear about water use efficiency and how you define that or how you define benefit.

I don't want to go over old ground, but I was disturbed to see in the comments that Stu and I guess Brad from the Farm Water Coalition submitted to CalFed, which included in one of their sections on the draft of CalFed water use efficiency Common Program they are advocating striking out what I understand to be a fundamental CalFed goal, which is "Reduce the mismatch between Bay-Delta water

Page 199

supplies and current and projected beneficial uses dependent on the Bay-Delta system".

As far as I know, that is a fundamental goal of this program that everyone in the CalFed Program and BDAC agrees to.

So it's very disturbing to me to have an editorial comment that says "The statement struck out above indicates that the CalFed Program intends to re-allocate existing supplies, which is contrary to the Calfed solution principles".

So if we are still at the level of debate about the fundamental goal of the program then I'm very disturbed about that.

Anyway, I wanted to return to this issue of assurances.

I do think in the work group there have been levels of debate, one, with regard to implementation. I think Roberta pretty clearly stated the commitment on the urban side on ratcheting up its commitment to efficient water management from strictly the realm of voluntary BMP implementation but to a more standardized set of performance standards across the state.

I don't mean to imply that we are about to sign on the dotted line and that there is an agreement imminent among the EWC and urban water agencies. I think that would

Page 200

be hugely overstating the case.

However, I think there has been a very strong commitment there. I think many urban water agencies understand that the reliability of their future water supply and any -- and fulfilling their needs for any potential increases in water supply lie squarely on their demonstrated interest in a commitment to effective demand management.

I think that's been very clear.

I think with regard to assurances there has been some difference of opinion about what constitutes an incentive and what constitutes a penalty, and at the end of the last meeting Lester, sort of in a facetious way, raised the issue when I said I had to leave this meeting at a particular time because I needed to pick my kid up at day care. If I didn't get her by 5:30, it was $15 for every 15 minutes I was late and so Lester said "Well, is that a carrot or is that an incentive or a disincentive or a penalty?" I'm not sure. I think it's both. It was both an incentive to get there and also clearly there was going to be some consequence if I didn't. So I think that's the challenge for us and I don't mean to in any way trivialize this issue, but I think that's some of what the debate is that we are centering in on, how we distinguish between a sanction and an incentive.

Page 201

There have been extremist examples offered in the work group about, you know, pretty soon the State Water Board will be telling us how many showers we can take in a day and things like that, and I think that those are unfortunate kinds of comments.

I don't think they sort of move us in the direction of trying to find some common ground with regard to commitment to demand management. But on the larger, broader issue, I think we have some paradigm problems and I also want to address an issue that has been a hot one in the work group that we haven't discussed much here at all in BDAC.

We know that there is a lack of agreement on a definition of efficiency and a benefit and I think Stu spoke to that in some of his comments. But I think it is within the scope of CalFed to develop a public policy about how we are going to attempt to address that issue of efficiency and efficiencies of use.

Stu is confident that the market will take care of any inefficient use in agriculture and by and large I can agree with that. I think that, you know, as the cost of restoration of the Delta increases to all of us and all of the users then there are likely going to be practical economic decisions made among some ag users that may result in reduced use or whatever or land retirement or whatever.

Page 202

However, I think that we would all agree that without a level playing field regarding the cost of water that you are not going to end up with any truly efficient use coming straight out of any kind of market, market mechanism.

And regarding this issue of local flexibility, I think there is an assumption that any kind of standard of performance across a group of water districts restricts local flexibility.

I don't think that's true.

In the urban MOU, for example, ULFT rebates or ULFT conversion is a best management practice for urban districts.

Some urban districts are putting all of their conservative money into that practice.

Others are putting a minimal amount of money into it. I think it's still a performance standard across all urban districts but it's being interpreted and implemented differently district by district.

Now, I want to raise another issue because I don't think we'll have time to go into it today but I want to bring it to the attention of BDAC because it's one that particularly concerns me.

I think we may have a fundamental perspective problem with regard to how we define the environment.

Page 203

There has been numerous stakeholders, primarily from the ag community in the work group and in -- that are calling for efficient use of water for environmental purposes.

And, in fact, in Stu's letter he says "Any water used for environmental purposes, including in-stream uses be given the same scrutiny as water use for urban and ag purposes". Now, this raises a difficult issue for me because what I'm trying to understand is if -- first of all, is this a really major issue among all of the ag community? I don't know whether it is or not. But the large question is for me is the environment a stakeholder here like an interest group or is the environment -- is water the environment that we are trying to restore?

My assumption is that's what we are dealing with here.

But I think we are having some significance difference of opinion.

As far as I can tell it's human uses that have turned water into a commodity for sale and the whole concept of waste and unreasonable use was developed because of human uses of water, not the fisheries' use of the environment, as far as I could tell.

So that's another side issue that I think at some point has to be debated.

Page 204

Every river in California has been brought to its knees by mismanagement and overuse by human activities of all sorts.

And I'm of the belief that the purpose for our sitting here today is that we are here to address the profound environmental damage that the Delta and all of the upstream tributaries have been exacted over the last hundred and fifty years.

So it's very hard for me to understand that particular way of conceptualizing that the environment is just another stakeholder in this process.

I think I'll stop my comments there, except to say I think we need help on this (laughter).

CHAIRMAN MADIGAN: Fine. Thank you. Judith and then Richard.

MS. REDMOND: Our work group has been very good at bringing up issues.

First, I wanted to thank Rick for his presentation and all his hard work.

I think he outlined actually what we've achieved and what the issues are very well.

One thing that I think this discussion points out for me is something that has been clear all along, as we go through the Public Workshops, as we have these public meetings, as we read all of the correspondence on this

Page 205

subjected. This is obviously an area which a lot of people feel very strongly about. And so I know they feel strongly about all of the issues in the other work groups as well.

There have been a lot of difficult issues raised in our work group and I don't actually think Rick was trying to gloss over any of those. He did want to just point out that there were some areas of agreement as well as some areas in which we hadn't agreed.

The issue, the question that you've heard points of view from several different people and which Rick suggested we should address, is one of the issues on which we don't have agreement. In fact, one which you've all heard widely divergent viewpoints now.

And that is -- I would even state it slightly differently than it's stated in the packet.

It's not necessarily are the mechanisms that have been suggested by the work group appropriate mechanisms to assure some level of implementation.

It's almost are assurances a good idea at all? Should there be assurances and what level of assurances should there be?

See, if you listen to the debate it's sort of the question on the floor and there is people that say no and there's people that say yes.

And I think that this is probably

Page 206

something -- I'm not sure but it seems to me that it might not be something that this larger group is going to come to agreement here on either, how to move forward on that question.

One possibility is simply the mechanisms that we've come up in the work group aren't the right ones and if we had come up with different mechanisms there would have been more agreement. So if there are members of BDAC who have other suggestions for mechanisms to, you know, ensure what Stu called -- you know, to make sure that districts are performing, if folks have other ideas, I think that that would be very helpful because none of us are absolutely certain that the ideas we've come up with are the right ones.

Another possibility is that we just leave it up to the staff and say, well, there's these pretty divergent view points and we are not really able to reach agreement on them and so we are going to have to wait until we see what the whole picture looks like. We are going to have to wait until we have more information about the entire CalFed Program and see which way makes the most sense in terms of moving forward.

There is also a third suggestion which is that I've also heard in the work group people saying that there is no possibility of additional water savings in the

Page 207

agricultural or urban sectors and, on the other hand, people coming and saying that there is huge amounts of waste in both the environmental and agricultural and urban sectors and between those divergent viewpoints perhaps there is some truth somewhere and I don't know where the truth lies.

And I think that in terms of analyzing what the correct route for us to take is it would help if we had some answer to that question, some -- again, this is -- not that I don't want the work group to continue debating this, but it's a way of -- I also think that we need to turn it back to the staff and get some technical information that would help us analyze the different avenues that we come up with in terms of moving forward.

CHAIRMAN MADIGAN: Richard and then Bob Raab.

MR. IZMIRIAN: I think the comments we've heard really give the staff some things to chew on.

Some of us, or maybe it's just me, have a hard time understanding how the tools, particularly, the agricultural tools that were presented, can help Lester put together his jigsaw puzzle. They seem to be looked at as ends in themselves. There is really no way to see where these tools will actually create an overall Bay-Delta solution.

Page 208

I agree with Roberta that we have to leave some water in the streams. I agree with Alex that we have to look at a watershed approach.

CHAIRMAN MADIGAN: Would you kind of like agree with Stu and Mary, too?

MR. IZMIRIAN: I would agree very much with Mary, and I'll withhold my comments on what Stu had to say except that I find the argument breathtaking that they shouldn't have any -- there shouldn't be any stick, that there shouldn't be any sanction for not meeting certain objectives.

I'm in business and I see that those things that -- those requirements that are regulatory based have a lot more effectiveness than those that are business or incentive based and I'm thinking primarily in terms of energy efficiency.

I would like to see the same policy questions raised for water use efficiency that were raised for the water quality discussion that we had where the -- I think it's very relevant that the -- that actions are taken at the local level and that the actions that can be taken are done with some flexibility but it should also be put into a larger watershed framework and I would like to see those same issues discussed for water quality in those terms.

Thank you.

Page 209

CHAIRMAN MADIGAN: Thank you.
Bob.
MR. RAAB: One quick point on the matter of equity.
This program proposal sounds to me like pretty much an carrots and no stick approach and I don't think it's going to be workable.
There are big discrepancies between the way urban water districts use water and I don't see them being resolved here unless you say things like you cannot have an unlimited amount of sod in your garden. If you live in Los Angeles or out in Riverside where it's arid.
When -- in the water district I live in a water rich area is aiming towards (inaudible).
Now, the water districts in Southern California can say "Well, we are doing just fine and thank you very much" and the fact remains that we'll be using a lot more -- a lot less water in a water rich area than this arid region.
This arid region will be using a lot more water and I don't see this program coming to grips with that kind of problem.
CHAIRMAN MADIGAN: Thank you.
Howard.
MR. FRICK: I just wanted to add a little

Page 210

bit to what Stu had to say and Judith.
You know, we realize that agriculture uses, I guess, what, 85 percent of the developed water supplies in the state.
So I don't think there is any question that agriculture owes the people of the State of California some method of evaluating their efficiency and showing that they are using it properly. We need to do that.
And if we're not we need to get our act together and make the corrections necessary.
The thing I'm concerned with is the carrot stick thing is when you try to use the stick and to try to put something in place now that's stronger than the voluntary MOU, I think you are going to get such resistance that it's going to slow the process that we are trying to move forward.
It's going to be difficult already. We see it in some districts are skiddish about signing the MOU period even though it's voluntary.
They are concerned about using their figures against them. I tell them, "Hey, you've got nothing to hide. You are doing a good job. But if you are not you need to make corrections or if you're going to work do that anyway".
But I think that's going to be tough enough to

Page 211

sell and if you try to put sanctions in place to be sure there is compliance in our process here, I think you are going to actually slow the procession down because you are going to have a big fight and I think that would be very unfortunate because I would hope this thing would move forward.
As Judith said, there has been statements that there is no waste and I've been one person that's told you more than once that there is very little water to be saved in agriculture by increasing efficiency.
I can say that. If you don't believe it, it doesn't do any good and you have people saying there is incredible waste.
I think the way to prove up on this and find the facts and deal with them is to give the 3616 process a chance to work. It's been six years or more for getting developed. I think it's comparable to the urban one that's been in place, that is working and I think we have to give it a chance.
CHAIRMAN MADIGAN: Thank you, Howard.
David.
MR. GUY: I think just to echo a lot of what Howard just said, that the two-year provision I think concerns us. I think Stu has articulated it well in some of his writings as has Brad Chin. I think as most people

Page 212

recognize the diversity of California agriculture is just astounding and to try to suggest that within two years we are going to bring that all together under one uniform process, I think, is just not going to happen.
The question I guess that I would pose then is why are we so focused on the assurances in this particular group when we have a whole nother assurances process and we know that by the time this thing is wrapped up we are going to have to have a hundred or a thousand different assurances that are going to be necessary and we recognize that so I guess maybe the question for Lester is why are we focusing on assurances right now in this process?
Why don't we save the assurances for the later time as part of the assurances process.
EXECUTIVE DIRECTOR SNOW: Well, maybe part of the answer is that some of the finalization of the assurances or triggers, in fact, will wait until a later part of the process.
But I think the reason it has come up now is the significance associated with water use efficiency and how people have been concerned that just having a program description that makes it all voluntary doesn't quite do the job and therefore you need to at least bring up the assurance issue.
The issue that you raised is must we put on our

E-014094

Page 213

timeline absolute resolution of the assurance issue now? I think the answer to that is no. In fact, and I think it probably would be impossible to completely resolve the assurance issue at this time.

But I think -- I mean, there is still some substantive disputes and disagreements on this and I don't want to minimize those because those may in fact at some point become more important than this assurance discussion.

However, I think there is a chance that the assurance issue can be resolved in a broader context that all of the assurances are going to be necessary to guarantee the adequate flows and the protection of water users and all of the things that are down line on us. That can be wrapped into that but this one really has surfaced early and it's an important one.

MR. HASSELTINE: Mike and Sunne both have had to leave and Mike asked me if I would just carry on for the rest of the day so I will I hope you'll all indulge me with that. We do have some other topics by the way that we have to get into today and I don't want to belittle the discussion that's taking place here but this is a discussion that's going to come to a close here and then go back, I'm sure, to that working group and to the staff to begin to work on some of the resolutions and some of the problems that are being discussed here because the water

Page 214

use efficiency is one of our common programs so it's supposed to be one of the building blocks of our whole project here.

Anyway, I have Ann and then Ray Remy and then Roberta and then Mary.

Ann.

MS. NOTTOFF: Well, I'm glad you brought us back to the procedural issues of how do we deal with this lack of agreement in this work group now.

And I think that one of the things that concerns me and concerns NRDC so much is that the presentation that we just heard, there is a huge inconsistency between, you know, the objective of having a strong water use efficiency component and then the tools that were set out there do not live up a strong water use efficiency component and I don't think that the water use efficiency work group should be apologetic that they have a lack of consensus. I think that's what this whole process is about. We need to debate this. We need to figure out what is the right mix in terms of assurances for ag water use efficiency. But what I see being presented here is that we are going to short circuit that debate when we have 24 months worth of review and analysis in front of us.

I stretched my legs, looked at the map, at the chart, and we are only at the beginning of that chart and

Page 215

to jettison what are some legitimate policy issues and policy opportunities for maximizing agricultural water use efficiency at this point would -- certainly is not the way at NRDC or the Environmental Water Caucus sees this process as working.

So I think that rather than -- I would like to see us come up with something right now, a renewed structure or some type of plan so that we don't just refer this back to the same work group that's been struggling with this issue. They've done their job. They've put the issues on the table. They've come to us and said, "Listen, we are at a stumbling block here. I think we need to think about some way to help us move forward".

But to say that, well, you know, this is going to ruffle some feathers and it's going to be a problem so we shouldn't go forward with even considering it at this point, then if that's the test for any management measures that we are talking about here that we don't want to ruffle anybody's feathers we are not going to go anywhere with this program and I think it's more of a question of not that we are looking at why should we look at agricultural water use efficiency assurances now.

The question seems to be more like why should agricultural water use efficiency be exempt from the assurances work group.

Page 216

I mean, that's, I think, what -- we are being told right now we can't even talk about it. If that's really how strong this debate is, then we need to resolve -- I don't think we can resolve it. We need to put something in place that we can move forward on it.

MR. HASSELTINE: Well, I think that, you know, we had a discussion previously at one of the earlier meetings about consensus here and how we were going to try to function as a group and it's very clear on this particular point at the moment there is not what we would call a consensus.

And so we are going to have to do something about that.

That's not an issue that's unique to the water use efficiency working group.

That's going to arise in all of the other working groups in one way or another, I'm sure. As we all know, we all come here once a month and then perhaps in one of the working group meetings. Some of us work more regularly in the water issue than others but as a Board we only meet together once a month or so and it's very difficult to come in and just pick up where we left off and maintain a real comprehension of everything that's going on.

That's one of the reasons we have working

Page 217

groups to do some of the thinking for us.
This is a process which is very dependent on good staff work and having a good technical backup so that the information can be brought to this Board to deal with.
And I think in this case that the appropriate way to try to get to the point where we do have something we all can live with in terms of water use efficiency, is to have it go back to the staff, analyze what's been said here to see where the real problems lie and where the real opportunities lie and I don't, frankly, know. Right now we don't have a process that allows this to simply be brought to this Board and say "Okay. We are going to either take one side or the other".
I don't think that's the approach that we want to get into, but I mean that's certainly up to the rest of the Board and it's probably too late in this particular meeting to get into this.
We are missing our Chair and Vice-Chair and a number of other members that have left.
So I would say let's continue the discussion today -- unless there is objection -- until everybody who feels they need to say something today can do that and then let's refer it back to staff and this can be brought up again at the next meeting.
If that's not satisfactory then offer an

Page 218

alternative.
MS. NOTTOFF: Yeah, I mean, I hope you're hearing that the water use efficiency (indicating) -- you know, the description of the core program that was described here is unacceptable at this point in terms of meeting some of the very core objectives of this program.
Certainly, in the opinion of the Environmental Water Caucus.
CHAIRMAN MADIGAN: Ray.
MR. REMY: After that particular conversation it gets to a fundamental issue of conflict resolution which we've avoided within the processes of BDAC.
A couple of comments, particularly in terms of the work involvement I've had with air.
When the air area got into a very heavy regulatory approach it was helpful and useful but it also created a fire strong backlash that ultimately led to a lot of legislation where we as a business community in Southern California wound up having to defend the air quality management district because we felt that they do important work.
On the other hand, the straight regulatory approach really did not prove as successful as some other techniques I think, that followed on, including the

Page 219

reclaimed program, and that may be -- there may be something within reclaim which is a market based mechanism incentive system of the targets to be achieved with benefits to those that do that could apply somehow to the water use efficiency. At least it may be a technique that might be useful to look at.
Having made that statement I do have a question for Rick.
You and water quality both highlighted the fact that there had to be financial assurances and cost benefit issues.
Are you developing those financial constraints or financial considerations, and, if so, can you make that available to the finance group?
If you are not, who do you think is developing and when would they be available to the finance group?
MR. SOEHRN: The two locally directed processes that I mentioned, the Urban Council and the ag Council are working on that.
I know as a part of the new ag MOU there is a net benefit analysis methodology included in that document.
It's my understanding that the Urban Council is working on similar documents to help urban agencies with that kind of analysis and Byron Buck is here and perhaps Byron has a little more up-to-date information on the

Page 220

status of some of that work in the Urban Council than I do.
BYRON BUCK: Yes, Byron Buck, California Water Agency and also administrator of the California Urban Water California Conservation Council. The Council is on the verge of publishing its cost effectiveness guidelines. There is a pretty thick manual on how you go about that analysis and how it relates to the MOU so that should be coming out.
I did want to speak a little bit to this issue but I don't want to get in front of your BDAC members. So the Chair's guidance here.
MR. HASSELTINE: Go ahead as long as you are there.
BYRON BUCK: Okay. just very briefly, Judith mentioned the work group and characterized it as half being over and there should be sanctions and half there not.
I think I would look at that a little differently, certainly, from a California water agency's perspective.
We're in sort of a maybe position that maybe there is a need for certification and possible sanctions but we haven't come to that decision. It's not ripe yet.
We need to look at the whole process and see what the Council is doing.

Page 221

We have agreed with the Environmental Water Caucus to go forward with looking at the four point program we laid out, which looks at redefining the VMP's, coming up with measurable and evaluation tools, looking at a certification process and a sanctions process as well.

We are agree at this point we definitely need to upgrade the VMP's. They are a bit too vague right now. They don't lend themselves to measurement and evaluation.

That work is funded, is ongoing now. Council has a work group that's met six times already in full day meetings. They are in the last throes of getting out a draft, redraft of the VMP's, it's going to go out to a public review here in the end of the February 3 Workshop statewide.

We have also agreed that we need better measurement and evaluation tools, and the Council is working on that as well, concurrent with the redefinition of VMP's. The work that CUWA has funded with the EWC and a work group between CUWA and EWC is to come up with an overall package to mate with those redefined definitions and the Council's ability to do evaluation work. Then look at what kind of certification mechanisms might be possible and how indeed would they link to any sanctions and if they were needed.

All of those questions need to be addressed in

Page 222

detail.

Urban agencies need to know what the yardstick is going to be before they would subject themselves to that so that they know where they're going to stand in the system, but clearly from our perspective those things are on the table. We need a process to work with them and we've agreed to work with the Environmental Water Caucus to do that and it is indeed an open process that's going to have to be subject to BDAC review and anybody else really who is really interested.

Thanks.

MR. HASSELTINE: Thanks.

Roberta.

MS. BORGONOVO: I just wanted to go back to a point that Judith made and that is that when you -- is there sort of a Catch 22 if you don't have some sort of performance standards in place and you don't have measurement evaluation out there because then the case always comes up, well, what will the savings be which I think goes back to this discussion in the CalFed process.

And part of our worry is that there probably is a difference between the amount of savings you can get strictly voluntary and the amount of savings you can get where you have performance standards in place and you have a lot of financial incentives to do it but you also have

Page 223

some sort of regulatory fall back.

So, again, it's not a heavy regulatory process that we are involved in.

But I just wanted to go back again to the advantage of it.

I think the advantage that many of the urban water agencies have seen and I think some of the agricultural agencies, too, is that if you can have some sort of agreement on what your performance should be and you can have some sort of a way of verifying that you performed it, you get buy off and you begin to answer this question of what the savings are and you begin to narrow the expectations between no savings at all and savings that a lot of people think they would never be able to achieve no matter what. So it goes back to some of these important issues that I think if we could ever get beyond them would bring us into a consensus mode and I think it would be more equitable because there are several agencies in both the urban sector and the ag sector that are way out ahead of everyone else and you want to sort of recognize that, too.

MR. HASSELTINE: Okay.

Mary.

MS. SELKIRK: You asked earlier for suggestions, how to advance this process.

I don't have a totally coherent suggestion

Page 224

except I think that Ray raised an issue when he mentioned that we don't have any process here for conflict resolution.

This may be a issue that the work group I don't think is ever going to reach agreement on. I think there are strongly held beliefs. People have very strong emotional values attached to their beliefs and to their definitions of the problem as well as the solution, along with a tremendous amount of, you know, technical information on all sides here.

Maybe what we need to think about over the course of the life of BDAC as we -- I think as the work -- poor Hap -- assurances group -- as your Agenda gets piled higher and higher and higher that I think ultimately we are going to have to be devoting a fair amount of time on the Council as a whole, maybe an entire seven hour meeting one day to developing some areas of very explicit agreement on assurances with regard to different components of the CalFed Program, that that may be one way to begin to address these issues.

I don't think it's going to get resolved in the work group.

MR. HASSELTINE: Well, I think this would be a good point, Lester, for maybe you to address this general problem.

Page 225

EXECUTIVE DIRECTOR SNOW: Perhaps I'm naive and perhaps I'm overly optimistic but I'm not so sure that people are as far apart as the words that we choose today would make us seem.

I think there is a chance in the context of not just the water use efficiency component and in the ag and urban but in the context that includes transfers that a lot of these issues are in fact on the table and more agreement than we would expect.

But what I've noticed at the work group and here today is sometimes we use choose phrases to express our opinion that punch the button of the other side of the table.

And with that observation I guess what I would like to try to do is take this discussion, along with the information that we've gotten by letter and previous comments and try to craft what the program might look like, not a narrative explanation of previous discussions, but rather what the program might look like, how it might actually function and then perhaps to try to address some of the specific issues that have been raised and where they might fit in or plug into other parts of the program.

Because some of the issues that get raised aren't simply resolved in the water use efficiency program. They are resolved in other parts of the program.

Page 226

And so I think I'd like to try that where we put out a -- kind of a new document, a clean document, in a different way of explaining this and see if we are any closer.

And I know that we will not have closure at that point no matter what we write but maybe we narrow the issues, refine the disagreements, and then put them in the right pile to be resolved as the whole package comes together. So that's kind of what I have in mind as a way of proceeding from this meeting and see where we are at that point.

MR. PYLE: Do you have any time frame on that if any of the participants would like to submit a little more to you to consider (no paragraph).

EXECUTIVE DIRECTOR SNOW: That deadline was yesterday, Stu.

MR. HASSELTINE: Would your document, Lester, go back then to the work group to have a look at it before it comes back to the floor?

EXECUTIVE DIRECTOR SNOW: Well, obviously I haven't worked this out with Rick or Judith. Judith and I were discussing at lunch of how perhaps the next meeting which is scheduled for the 13th is just too soon for us to do the revision because the mailing would be on Monday so I'm thinking once Rick and Judith and I talk after this meeting we may in fact cancel the work group meeting. I don't want to say that because we haven't collaborated with Judith on it but if that works out to then delay it and get a nice clean document out for their next meeting.

Page 227

MR. HASSELTINE: Okay.

Linda Cole, would you like to speak on this.

LINDA COLE: I'm Linda Cole, Valley Water Protection Association at grassroots group at the Butte County level.

And I don't want to talk specifically about environmental water or ag water efficiency.

What I want to talk to you about is water transfers.

We have real concerns.

The tactic that CalFed is taking in terms of tabling the discussion about transfers and going with the assumption that water transfers are a done deal because DWR has moved in that direction when, in fact, DWR has been operating under a program Draft EIR that was based on drought necessity.

And we see there is a real opportunity for CalFed to contribute to the development of policy on transfers using the guideline of not just redirecting problems to another area, equity, and your idea of not inducing growth and demand management.

Page 228

We think that there are two issues about transfers.

One is transfers that have to do with in basin efficiencies that might be very useful management tools using conjunctive use where surface water is redirected to another user and groundwater is pumped where it may be more available but when you are talking about transfers in the same breath where water is redirected from one basin, one whole region, to another region, we think that this is where CalFed can contribute to the discussion that has been avoided.

We lived through a drought water transfer that was abusive in Butte County and so we have seen that there are problems that have not been addressed by the model water transfer act that is proposed, SB 15, and yet without having a discussion about water transfers you are basing your program study, factoring in transfers and you have correspondence essentially encouraging support of SB 15.

So I would urge you to take transfers up before you move too much further along, whether it's done in the efficiency group. That may just add one more level of contention, or whether you have a separate group.

But I think this is something that shouldn't be avoided. This is an opportunity for you to take some leadership here.

Page 229

Butte County is rather unique in that we stand to have impacts from the Central Valley Improvement Act, from the State Water Project, and also from refuge land that's being expanded. In fact, specifically, the last purchase of some large tract of rice land to be added to Grey Lodge was justified when the supervisors were concerned about that land being taken off the tax roles, was justified because it would provide more groundwater for the refuge.

And the comment was, "Well, we have a fund to pay for taxes, for land that's taken off the rolls". Butte County has not gotten any of that money because the fund always runs out of money first. So we are talking about policies that are coming from all of these different directions and assumptions about a critical component that could possibly change the whole culture of our county.

And I would urge you to take up transfers. Don't make the assumption that it's a done deal and that it's appropriate just to have a blanket acceptance of transfers and certainly don't go with the program EIR on these numbers.

That has not worked for the drought Water Transfer Act. They have not gone back and refined. What they've done is just continued on and stonewalled.

Thank you.

Page 230

MR. HASSELTINE: Thank you.

Judith.

MS. REDMOND: I just wanted to respond to that by saying that we have in the work group been planning to take up transfers and we had planned to do that at our next meeting.

It's looking like we won't be able to because the work at the staff level on providing us a written product that we can work from hasn't been done but we hope to take up that subject some time in the next few months.

MR. HASSELTINE: Okay.

Hap.

MR. DUNNING: I do have a short comment as to the way the group is going about it listening to this debate and difference of opinion.

In my mind at least, and perhaps this is grossly over-simplifying, but in my mind I hear Stu and Howard and others suggesting that you ought to have a program which is entirely voluntary and others saying, no, that's not going to really work. We have to have some coercive element. And what strikes me about those terms is they both relate to a regulatory approach.

I think there are other approaches to water use efficiency. I've always felt that price is a very direct and effective signal in many kinds of situations.

Page 231

It's something you just have to deal with on a voluntary basis. It coerces your behavior in some indirect fashion perhaps and in thinking about this I looked at the report to see what was being done about price and I noticed that it is a not included item, item 17 among the regional identified tools mentions water use diversion fee not included and when I looked at the explanation of that it said this tool is being considered by CalFed as part of overall financing options.

It is not within the role and scope of the work group to discuss but will be discussed in other forums.

Well, that reasoning didn't seem to apply to assurances and I am a little unclear why it is being applied to price signals and the water use diversion fee and I wonder if a more careful examination of that might possibly lead to some sort of reconciliation within this work group.

MR. HASSELTINE: Rick, do you have an answer to that?

MR. SOEHRN: There are two levels at which we can look at pricing.

One is that the CalFed agency level, and there we've set pricing of water from, say, State and Federal agencies or new water from the CalFed program. It might include something like a diversion fee would be part of

Page 232

financing of the program, and we can send that issue to another work group.

At the local level pricing is also a tool for efficiency, obviously, and in there it's addressed both in the urban MOU and the ag MOU. So pricing is certainly being addressed and because we've embraced both of those local agreements we have included pricing very strongly in our program.

But just not at the level of a diversion fee that might apply to all diverters throughout the watershed or anything like that.

We've put that over to the finance work group.

MR. HASSELTINE: On behalf of the finance work group, thanks.

MR. SOEHRN: My pleasure.

Okay. Alex and I see hands out in the audience. I'll get to those in a second.

It needs to be on this issue, though. The public comment period in general is late.

MR. HILDEBRAND: I just wanted to ask that before you announce the adjournment that I get a chance to offer a couple of items for the next Agenda.

MR. HASSELTINE: We are not too close to adjournment yet. Okay.

Audience participation on this?

Page 233

Okay. This lady here in front.

POLLY SMITH: My name is Polly Smith. I work with both the Save San Francisco Bay Association and the League Of Women Voters and I've worked a lot with water conservation in both the urban and the ag sector.

I'm very pleased, Lester, that you are taking this back and I hope that CalFed can craft a much more effective and aggressive and a broader and more comprehensive water efficiency element. To me it is not adequate as it's been presented although I think it's a very good start. I'm pleased that you were including multiple uses and watershed approach and that transfers will be considered and the reason I hope that CalFed will take a very broad approach is that both of the MOU's do not include all of the agencies in your watershed. I think water efficiency, water conservation, should be statewide but I know CalFed is just your watershed wide.

But only some belong to these Councils. What about the rest of them?

Maybe this is a bit flip. You should make it mandatory, if they don't belong to these MOU's, then they would join, but also within the MOU Councils some do a much better job than others.

There is a real inequity here and I think that you at CalFed can only solve with help from the Urban MOU

Page 234

Council and the ag MOU.

I'm concerned about the cost effectiveness issue too because of the low price of water for agriculture. I think that's going to be difficult and certainly I think the assurance issue is difficult, particularly if there aren't any backup sticks or penalties or disincentives. I would hope the approach would be so many incentives that people voluntarily would join and do everything possible.

So it would be so disadvantageous to them not to and I'm sure that pricing should be given a real -- price and measurement should really be analyzed.

Thank you.

MR. HASSELTINE: Thank you.

This gentleman and then Mr. Petry.

MR. JACKSON: My name is Mike Jackson.

I'm a lawyer representing the ~Regional Council of Rural Counties.

I've been attending some of the water use efficiency Workshops and I'm very happy to see that you are expanding the program to deal with water efficiency on a watershed basis, is what I understand I just heard. The problem is we have not clearly defined what we mean by water efficiency.

To many of us who believe in the watershed view

Page 235

water use efficiency would be designed to attempt to use water as many times as possible all the way through the system, thereby benefiting everyone.

Dealing only with efficiency to say one form of product I think loses concept of -- loses sight of what efficiency could be.

I have not seen a sector analysis either in terms of water use efficiency.

I don't think it is completely appropriate to judge simply whether or not alfalfa water use is appropriate at five acre feet per acre or seven acre feet per acre.

I think what you want to take a look at is whether that sector is efficient in comparison to all of the other uses.

And I don't see any of them in the water use efficiency work so far.

What I see is that we are talking about water use efficiency as if it was simply a matter of what happens after the diversion to the tap and that's just not a very efficient use of the concept of deficiency.

If we broaden the idea to include the efficiency of the Delta use of water in a circulation system using the State and Federal pumps in the San Joaquin River, that water use would be the most efficient of any

Page 236

use that you could do because you get to use it twice (indicating).

So I would encourage you to take a look at the definition of efficiency as we begin this project again and try to understand it in a much more holistic environmental sense.

The other thing is that in the matter of transfer, form of us upstream transfers are the singlemost inefficient way to deal with the water problems of California because they lead us into a legal morass that we are all quite aware of in California water law.

The transfers are so unique to the individual situation that it seems to me that it's impossible for us to rely on that water as part of the long-term structure before we do a real examination of the logical question of transfer and so if you are going to deal with transfer, it should be a subject of its own and it should have the time and attention it needs and I do not believe it can be done on that timeline (indicating).

So I'm pleased that water use efficiency is expanding.

I don't think we are there yet and I think it's a very important area.

Thank you.

MR. HASSELTINE: Thank you.

Page 237

Mr. Petry.

MR. PETRY: I don't know who hung that schedule up there but I think he shot the lives of the Delta because it's kind of running (inaudible (laughter).

Anyhow, you know, I look at both sides of the story and I see what Judith is doing with the water conservation in her efforts and I think she should be commended because she is doing a good job, but then at the same time I have a complaint about recycled water when you talk about recycled tail water for agriculture.

(Inaudible) Pinoche Water District and if the they have a bunch of salt and salinity in that area.

And I helped to fabricate that system. We took transformers, electrical transformers, cut them up, stacked them up and that made the basin for the pumps and that was a lip system from one ditch to the other, picked it up and that helped to use it again. That was 40 years ago.

Now there is a whole lot of concern about the salinity in that area. They've got all kinds of tests going on.

It's one of the highest concentrations of salinity on the west side east of Russell Avenue and that's just south of the Delta Mendota Canal where the water table was so high that you couldn't drive grain trucks down the dirt roads without them sinking in before they built the

Page 238

San Luis drain. I was there.

So sprinklers -- if you want to sprinkle -- irrigate ground, you are going to conserve water. You are going to get more beneficial use of it. If you want to recycle tail water, you are going to have to have a good quality of water.

When you irrigate the fields, it goes down the roads, it's in a tail water ditch, comes back up.

What kind of chemicals did you put on the crops when you sprayed the crops?

Are those chemicals going to come back in a higher concentration and then you have to put more chemicals on the next time and you are doing the same thing with the salts. You get a higher evaporation so you get a higher level of salt in your tail water coming back to your ponds.

Then when we talk about water transfers if we talk about water transfers we'll be pulling water out of the ground and transferring it to another area. I don't care if it's in or out of project. That water has to be replenished.

So you have to have a consistent supply of water to replenish the water you are taking out. It doesn't make any sense to take it out and not put nothing back.

Page 239

Land subsidence is what they call it.

Transfer of water surface water. If you are going to transfer a surface water from an area and that area has sufficient supplies, fish, wildlife, habitat, row, domestic, industrial, agricultural and we have a supply for it, good, that's fine.

Now, that's high quality water we've got coming from the San Joaquin River. It's real high quality water.

And if we are going to sacrifice those waters to get more water by way of the Delta Mendota and the Mendota Pool I think we are settling things against the tide because the water coming up on the Delta Mendota isn't that high a quality water.

I'd rather see lesser water coming from the Delta Mendota and more water coming from the Friant Dam into the San Joaquin River and I'd like to see a consistent flow to replenish the habitat, to keep the (inaudible) of subsidence, to bring the salmon back, to bring up the quality of water, to have quality water to flush out the Central Valley region with rather than to have more water coming from the Delta Mendota out of your Sacramento Delta.

And, you know, and this goes to water quality, too.

You can't keep recycling bad water without getting the residue that you can't do nothing with.

Page 240

So we need to keep the water in our area in its place and we need more of it. We need more storage and it might be down the road we are going to get it but we will get it and at that time maybe there will be sufficient storage to where we can transfer our water out of project or across the Valley or anyplace else but at this point in time I don't think it's reasonable.

And I'm talking about where I live. And I want somebody to look out for us.

I want to thank you for your time.

MR. HASSELTINE: Thank you.

If there is no other comment on this I'd like to squeeze in one more presentation today that goes to some of the points that were just brought up.

Do you have a comment?

Is it on this subject?

MR. DUNN: My name is Bill Dunn and I'm the Director of the Calaveras County Water District and for those of you who do not remember me, why, I've been in the water business as a consulting engineer for like 40 years and I work all over the State.

My concern here on water use efficiency is the fact that this committee is restricting its needs for environmental water to that that is being diverted. It seems to skip the matter of in-stream flows.

Page 241

In-stream flows are a very critical part of water use for environmental purposes, presumably for water quality, for fish and wildlife and riparian uses and there certainly is a proper use.

The question is is how much water is needed for this.

In all of my 40 years of work I've been involved in the matter of in-stream flows and it's been my information that the methodology for developing has been pretty much guess by guess and, by gosh, with very little scientific input, and it certainly needs to be examined.

The in-stream flow requirements have been very serious, enormous, in fact, on mountain counties because that's their water.

They cannot start. They can't use it. It increases the costs of their development sometimes, even the feasibility of their developments.

It not only affects the mountain counties but it affects everybody above the outside of the Delta because they have to release water into the Delta for these presumed water needs and it affects everybody in the entire State when you consider the outflow from the Delta. It is really an in-stream flow need.

Those of you who followed that for the years this amount has ranged from 1500 second feet to 5,000

Page 242

second feet and that's a pretty broad range and I think a lot of attention has to be spent on really how much water is needed and what the cost effectiveness and feasibility of whatever these flows are, whether you are talking about mountain counties or the Valley or the Delta.

And I think if they don't feel -- if this particular group don't feel this fits into their Agenda, somebody must attend to it and must deal with it.

Thank you very much.

MR. HASSELTINE: Thank you.

Okay.

For BDAC we've heard Lester indicate what the process is going to be on this particular issue.

So if there is no objection to leaving it at that at this point, I'd like to try to close up today's session with a presentation by Steve Yaeger.

As you know, the fundamental differences between our three alternatives that we are looking at in Phase II are the storage and the conveyance components and to sort of end up today we'd sort of like to have an update on where we are with those definitions and those particular facilities.

Steve.

MR. YAEGER: Okay. What I want to do quickly, and I will move through this very quickly because

Page 243

we will -- I guess I'm not on here (indicating). Let me try this again.

I'm going to move through this fairly quickly. I'm sure you all are anxious to stay here until eight o'clock, too, but we'll be giving a more detailed briefing on storage and conveyance in the March meetings and April meetings so you can expect to see this coming back again in more detail.

I did want to review just a couple of contents, though, to get you ready for the briefings at those particular meetings.

So we are going to be giving you a little update on the progress that's been made since the last briefing we gave you and -- my battery is dead -- sounds a little better.

MR. HASSELTINE: Yeah, that's better.

MR. YAEGER: Am I on back there?

MR. HASSELTINE: Yep.

MR. YAEGER: So I'll give you an update on the progress we made since the last time we reported at BDAC. There was no member meeting.

I want to review with you quickly some of the ranges of the storage conveyance component that we are looking at and then just touch briefly on some of the operating concepts that we have talked about earlier so

Page 244

that you have a sense of what's going on there.

We've been continuing to work on developing the relationships between the storage unit and the conveyance unit and wrapping in, also, the water conservation elements and water transfer elements.

At this point we are concentration.

Concentrating mainly on storage and conveyance but we need to keep that in the wider context of these water use efficiency measures, also.

To give you a sense of the relationships that we are working on this flow matrix diagram tends to try and draw what those relationships are between north of Delta Storage, Delta conveyance facilities and what we call storage facilities off the -- on the aqueduct system; that is, the State Water Project aqueduct and the Delta Mendota Canal. Generally south of Delta Storage falls in that category.

Remember, again, within this we've got water use efficiency and water transfers fits in the larger water management picture.

But we are looking at a ring of surface storage north of the Delta and conjunctive management of groundwater basins on a partnership basis with local agencies.

Both of those storage concepts interact with

Page 245

each one of the three types of conveyance that we've specified in our alternatives, the existing conveyance system, through-Delta conveyance, dual transfer and so you get a different relationship north of Delta Storage with each one of the conveyance systems.

Also, in Delta Storage interacts with conveyance and north of Delta Storage in a different type of a relationship and this flows through and then you get a third tier of relationships with the south of Delta Storage off of the aqueduct system.

It will give you a sense of the kind of the complexity of what we are trying to analyze. We'll give you a few of the relationships that we are developing at the November meeting but we are moving ahead to try to fill out this full matrix of the combinations of conveyance along this line, of storage along this line.

You remember from the Phase I alternatives alternative one was providing more efficiency in the existing conveyance system. We'll be looking at reoperating the existing system and adding increments of an increased pumping capacity in alternative one and combining that with looking at the north of Delta, in-Delta, south of Delta Storage and groundwater.

The colors here and also the numbers that we have along the axes are only to give you a sense of the

Page 246

kind of ranges that we are looking at.

We haven't yet defined exactly what the outer edges of these ranges are, but the green, for instance, is meant to show you that with the reoperation existing system that the larger storage facilities don't make as much sense. You can't make efficient use out of them and it may be pointing toward a smaller storage north of the Delta, whereas with the larger re-operation schemes, of course, larger storage makes more efficient use of the system.

And that's similarly true with the other conveyance alternatives.

This is kind of a simplistic presentation of all combinations. If we had had time to work out the graphics, it would be even better represented as kind of a Rubic's cube because it's really four dimensional; north of Delta Storage interacts with in-Delta storage and you get different relationships and again reacts differently with south of Delta storage and so you have a four dimensional matrix that you are working with that we are trying to develop the kind of relationships to fill in the boxes here to give us a sense of what ranges of storage work with the different conveyance schemes.

Again, all of our analysis is kind of under this larger umbrella of the objectives that we have adopted for water supply reliability.

Page 247

There seemed to have been some confusion about that earlier but I want to make sure that it's understood that we are looking at these relationships against those objectives and the objectives again were to reduce conflict over the beneficial use of the Bay-Delta waters and reduce the uncertainty of Bay-Delta water supplies.

So that analysis take place within this larger review of objectives and the way that each one of the combinations meets those objectives.

I had some other things that I wanted to talk about as far as operating concepts but just to set the stage, some of those relationships we talked about earlier as to how you divert water out the Sacramento River into north of Delta storage and when you release it to augment fisheries flows and to augment water supplies.

Those operating concepts are really the key to how well each one of these combinations do in meeting the objectives and we'll be presenting some of those concepts to you at your March meeting in more detail.

Suffice it to say we've been working with a group of stakeholders, both on the waterside and the environmental side to try to frame the range of operating concepts that we'll be using in doing the analysis to show how well these alternatives do in satisfying the objectives.

Page 248

So I think I will just stop there and if you want to take some questions, I'm available or --

MR. HASSELTINE: Well, yeah. I had one.

You've got a matrix up there of a whole bunch of different combinations, but for each of those sizes up along the top you also have different possible locations.

Right?

Is that another variable?

MR. YAEGER: The location variable is really what's shown in green, north of Delta, in-Delta, south of Delta, and, again, we are dealing with it at a programmatic level so we are looking at a range of geographic locations north of Delta. That would be north of Woodland clear on up to Red Bluff.

MR. HASSELTINE: That was my question.

Is the fact that those could be anywhere in that area is where they specifically might be as you start to look and narrow it down and you have choices, yet you had another set of variables, right?

MR. YAEGER: The geographic area enters into it as a variable but not some of the other issues we are dealing with.

MR. HASSELTINE: I understand.

MR. YAEGER: But, obviously, where it's located and where you are able to move water off the

E-014103

Page 249

Sacramento River does make a difference there in meeting the objectives.

MR. HASSELTINE: Questions?

Alex?

MR. HILDEBRAND: You don't appear to have any storage shown south of the Delta on the east side.

If not, why not?

MR. YAEGER: I just ran out of dimensions to show that, Alex.

Really, when we say south of Delta storage we are including the San Joaquin system and looking at raising the existing facilities there and providing offstream storage off the San Joaquin to accomplish fisheries benefits and water quality benefits as well as water supply augmentation. So it is in the mix. It isn't shown real well with this matrix but --

MR. HILDEBRAND: Yeah, but if you lump it in with south of Delta westside storage, the latter ties in with your conveyance capability but the former does not.

In fact, any water yield you can get in the San Joaquin River system from that system or from the King system is the water that then is already south of the Delta.

It doesn't have to come across the Delta, and it's conserved in more multiple uses than these storage

Page 250

systems you have to the north.

MR. YAEGER: That's exactly right.

We simplified this in order to try to get it on a single graphic but, in fact, the way we are looking at it is that north of Delta storage geographically is the same as the San Joaquin system storage.

It operates in the same kind of way and we will be looking at it within that context but we just simplified it in order to get it all on one matrix.

MR. HASSELTINE: Any other questions?

Okay. Thanks, Steve.

Okay. That's going to end the business Agenda for today.

Are there any further public comments?

I don't have any cards.

Okay. Seeing none then we are adjourned until March 12th.

Is that right?

I'm sorry, Alex. I forgot you.

MR. HILDEBRAND: Two items for future Agenda.

One is that, as far as I know, BDAC has never had an explanation of the function of the ecosystem round-table, how it relates to Mary's committee, how it relates to the BDAC.

Page 251

In an implementation section of today's brochure it says that the ecosystem round-table -- the list of problems recommended for funding will go to the ecosystem round-table for review and discussion. The ecosystem round-table is appointed to provide stakeholder input into the process for priority setting and selection.

Does that mean we don't need BDAC anymore, round-table has taken over?

MR. HASSELTINE: I don't think so.

Alex, that's one of the things we dropped off today because we ran out of time.

MR. HILDEBRAND: I'm suggesting this be explained at the next meeting.

The other thing is that an appropriate time that would be up to Mary, I think, when that would occur.

I think we should have a presentation by Margaret Ambreau (phonetic) and Tom Zuckerman about the opportunities for ecosystem restoration in the Delta that do not involve taking land away from agriculture.

There are far more of those opportunities than I think most of you realize. Some of them are ongoing. Some are in the mill and others are potential.

I think most of you would be surprised to the degree to which you can get ecosystem restoration without taking land away from agriculture and without the

Page 252

consequent loss of water supply that happens when you do that.

MS. SELKIRK: Tom is on the work group so we'll make sure that that (affirmative nod) . . .

MR. HASSELTINE: Okay. Any last comments?

Okay. Then we really are adjourned.

(Whereupon BDAC recessed at five o'clock p.m.)

---oOo---

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN JOAQUIN)

I, SUSAN PORTALE, Certified Shorthand Reporter of the State of California, do hereby certify:

That on the 30th day of January, 1997, at the hour of 10:08 a.m., I took down in shorthand notes the said witness' testimony and the proceedings had at the time of the giving of such testimony; that I thereafter transcribed my shorthand notes of such testimony by computer-aided transcription, the above and foregoing being a full, true and correct transcription thereof, and a full, true and correct transcript of all proceedings had and testimony given.

_____
Certified Shorthand Reporter in and for the
County of San Joaquin, State of California

---

* QUALITY COMPUTERIZED TRANSCRIPTION *
* -by- *
* PORTALE & ASSOCIATES DEPOSITION REPORTERS *
* 211 East Weber Avenue *
* Stockton, California 95202 *
* (209) 462-3377 *
* *
* SUSAN PORTALE, CSR NO. 4095 *
